

national

SAFETY NEWS

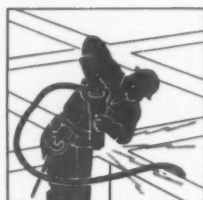
NOVEMBER 1954

Two Sections — Section 1

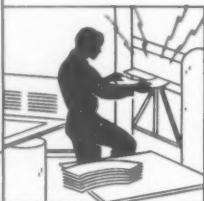
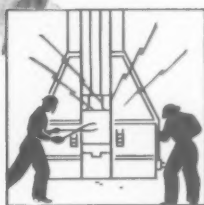


**INTRODUCING
SAMMY SAFETY**

See page 2



M. S. A. EARSaver



M. S. A. NOISEFOE



RACKET is hushed—but speech is HEARD with this NEW M·S·A EAR PROTECTION

Here is the modern answer to the problem of industrial noise which can often set the stage for accidents, work slow-downs, and loss of hearing.

Developed as the result of years of intensive research, the M.S.A. Ear-saver provides that all-essential seal with the wearer's face that assures effective over-the-ear noise protection. This device comes in two styles:

1. The M.S.A. Earsaver, an open-weave cotton gabardine headgear cap assembly for persons exposed

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Both models are light and comfortable, well balanced to eliminate work fatigue. Write today for complete construction details on this important M.S.A. development.



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M·S·A
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DEFENDERS



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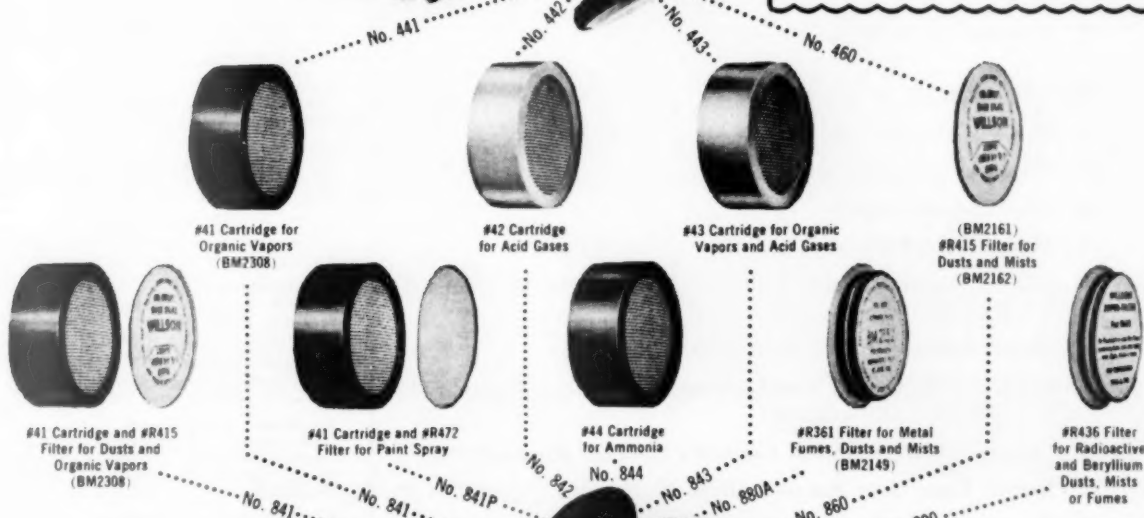
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IN BOTH SINGLE AND DOUBLE CARTRIDGE STYLES!

Single-Cartridge Series 400



NOTE: The cartridges and filter shown for use in the Series 400 single-cartridge respirator are exactly the same as those used in the Series 800 double-cartridge respirator and can be used interchangeably in both. The other five cartridges, filters, and combinations are recommended for use only in the Series 800 respirator.



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Established 1870

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SAFETY NEWS

Published monthly by National Safety Council

NOVEMBER 1954

THE COVER: Meet Sammy Safety, a little character just now being introduced to the safety world. The result of long effort to put more showmanship into safety, the Green Cross boy is intended to add life to exhibits and displays of all kinds. You'll meet him often in the months ahead, in publications, on television, in many other useful places.

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33,500 copies of this issue were printed.

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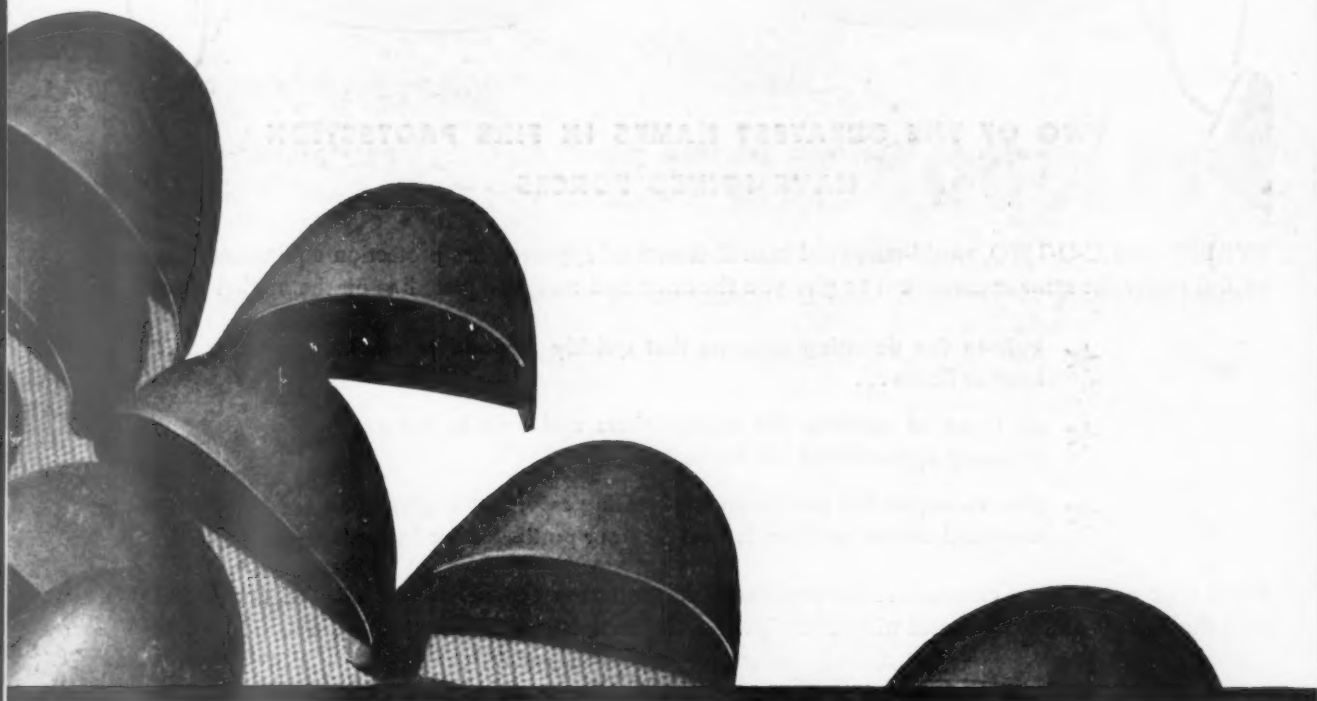
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Actual unretouched photograph of
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Of all these 19 styles, however, WINGUARDS are by far the most popular and will pass the 4 million pair mark this year.

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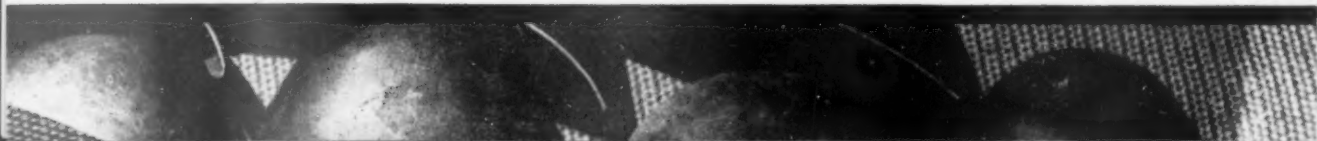
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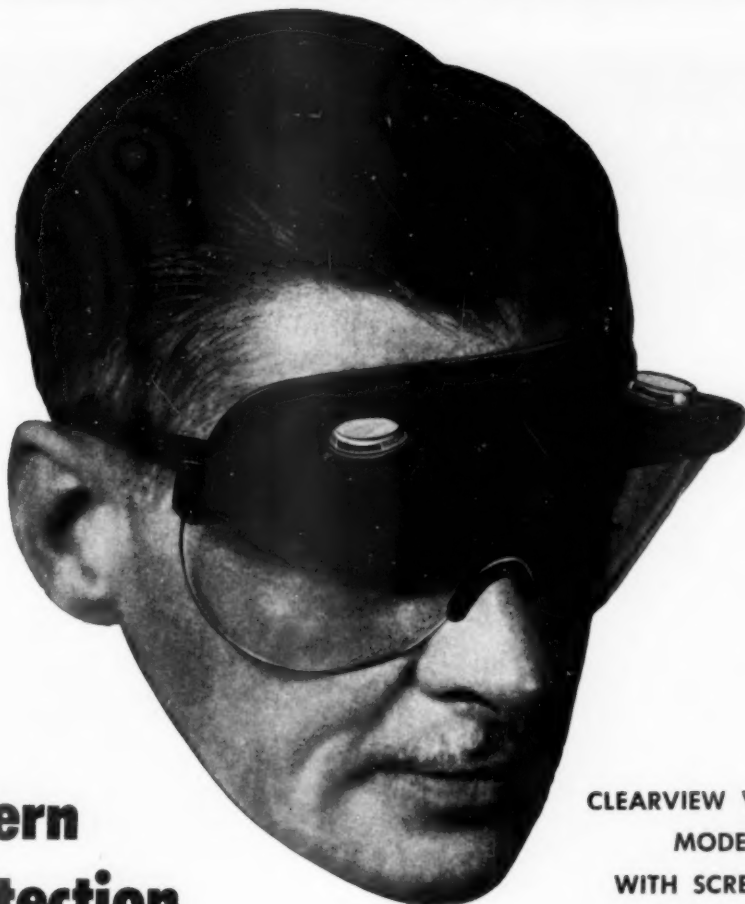


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WITH ALL THESE EXCLUSIVE FEATURES . . .

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**ELIMINATE
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REDUCE
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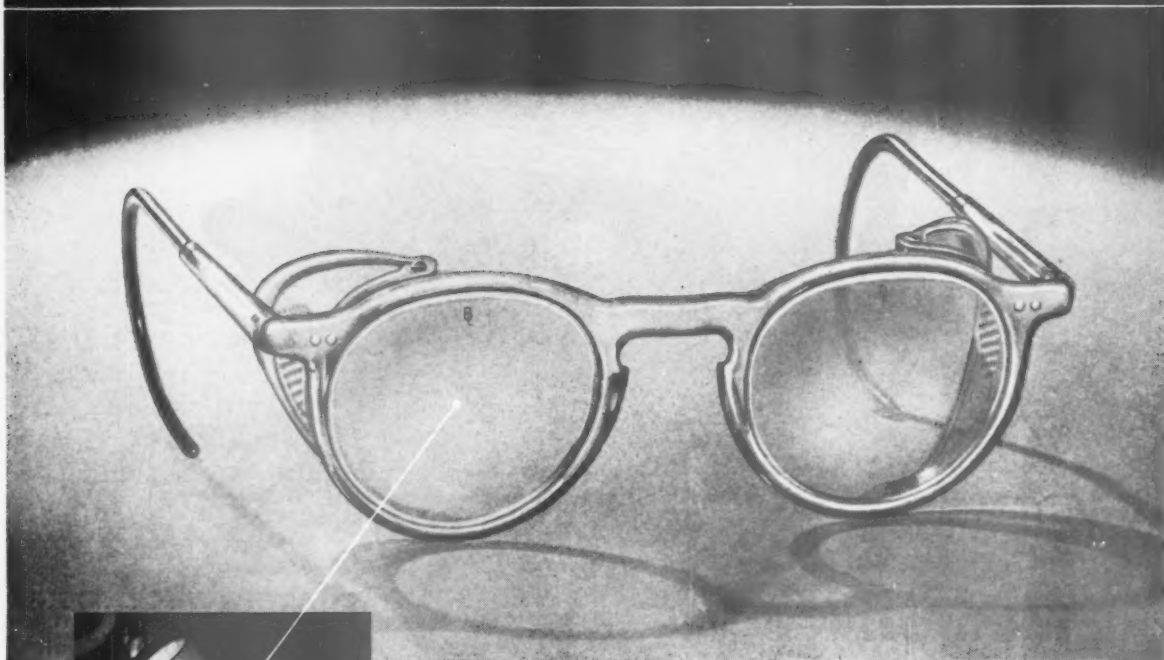
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LOW OXFORD (4381) with leather-lined steel toe cap, Tri-Vac sole. Also available in 6-inch shoe—#4111.

New Thom McAn leads in style and safety

Dress-weight safety oxford features sensational patented, skid-proof Tri-Vac sole

THIS best-selling Thom McAn looks plenty good to the men in your plant. They like its clean, comfortable lines and fine-quality leather. They want it because they already know how well it *works*.

On wet, oily or icy surfaces, the Thom McAn Tri-Vac offers increased safety these three ways. 1. Multiple soft ribs insure squeegee-like brake action. 2. Vacuum suction-gripping is increased by the cup-inside-cup construction. 3. Countersunk, liquid-trapping channels around each cup produce drier, safer tread.

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SAFETY SHOES

A Division of the Melville Shoe Corporation

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PENOPTIC
SAVE WITH SAFETY

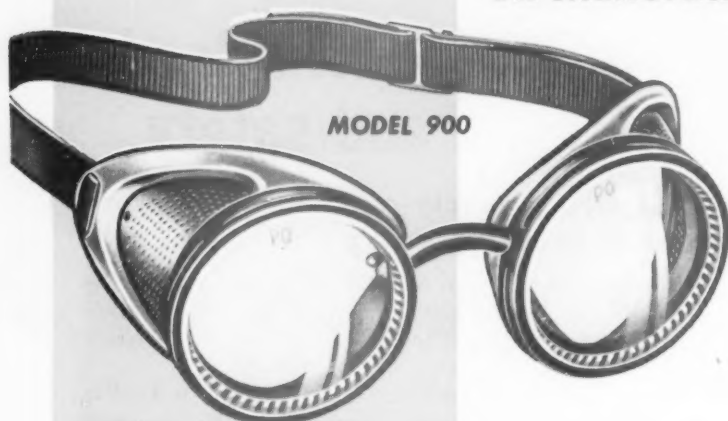
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AND**

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MODEL 500



MODEL 900

Welders' Model 500. Brown opaque thermoplastic cups with side shields and lens retaining rings providing indirect ventilation to prevent fogging and light penetration. Regular or heat-treated welding lenses in shades 3 through 10.

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Achieved! Greater comfort for welders and chippers in these two new Penoptic goggles with contour-fitted eyecups designed so that only smooth, broad, rolled edges cushion all contact with the face as they seal the eye orbits in complete safety. Construction features include metal reinforcing rings molded into inner rim of each cup to insure retention of original cup thread dimensions under all conditions. Aluminum lens retaining rings are threaded to permit easy lens replacement without tools. Proper arrangement of ventilating areas prevents fogging . . . makes possible an exceptionally shallow cup depth to provide wider angle of vision. It all adds up to immediate and permanent worker acceptance . . . AT LOWER COST . . . through Penoptic's manufacturer-to-you distribution.

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One Hand Operation! Easy-to-handle Rockwood WaterFOG nozzle is made of aluminum alloy, weighs only 5 pounds, 5 ounces. Nozzle design reduces reaction to a minimum.

Boy puts out raging fire

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By using a lightweight, 10-foot applicator, he was able to approach the fire safely as low velocity Rockwood WaterFOG was discharged through the applicator, quenching flames, choking off oxygen and cooling the surrounding area thus preventing "flash back."

Rockwood WaterFOG is the result of discharging water through a specially engineered Rockwood nozzle that breaks water into tiny particles which burst into a blanketing mist of steam that smothers fire. The Nozzle shown in use here is a

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Plan to make this and other Rockwood firefighting aids part of your team.

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Rockwood Double Strength Foam Liquid, 3 parts mixed with 97 parts water, forms a quickly re-sealing, solid FOAM blanket or a highly heat absorbent FogFOAM pattern — depending on the Rockwood equipment used to discharge it. Available in 5-gallon cans or 50-gallon drums.



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Street..... City.....
Zone..... State.....



How to put SAFETY on every worker's lips

You can't repeat your safety messages too often. And a good way to get in several extra licks a day is to use Continental's Safety Slogan hot drink cups. Each attractive cup delivers two practical safety messages that are brief, right to the point, and not a bit preachy. And these messages reach your worker at snack or meal times when he is relaxed and friendly.

QUICK DATA: Safety slogan cups are available in 6-, 8-, and 12-oz. sizes. Made of virgin pulp with double-wrapped sidewalls that won't leak... keep hot liquids really hot. Series of three cups (two messages to each cup) packed in rotation for variety.

Safety engineers from many plants where Safety Slogan cups are regularly used tell us these little messages from "Oscar the Life-Guard" are particularly acceptable to workers.

They can help you put your points across too. Ask your paper jobber for full details or write Continental today.

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② And here is the MAGIC HEAVY-DUTY Cleaning Station for heavy-grit areas or where ANTI-FOG protection is necessary—on plastic or any eyewear. Modern science's finest cleaning and anti-fogging fluid. Pressure-packed. About 1,400 applications per can. Each 12-oz. can contains twice as much as old-fashioned 6-oz. bottles, and pressure packing makes it go twice as far. So, 1 MAGIC CAN EQUALS 4 SUCH BOTTLES. That is the first saving.

No pump. Nothing to refill and priced at only \$12.50 per carton of twelve 12-oz. cans.

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The paper, not silicone-treated, is a superb, super-strong, wet-strength tissue. Naturally, no scratching on plastics, and no lint. Instead of a few sheets in little boxes, Heavy Duty carton contains 18 giant refills (each refill has 760 jumbo-size interfolded sheets 8" x 4 $\frac{3}{4}$ ") at only \$11.60 per carton.

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FREE BOOKLET. The informative story of sight and eye safety is told in our Booklet "ONLY ONE PAIR TO A CUSTOMER." Safety men tell us they find it invaluable. Write for this booklet today.

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again first in style

AS WELL AS PROTECTION



H504—Low Oxford featuring latest, three-eyelet design in new Brown Shrunken Leather; natural Nuclear Neoprene sole; brown half rubber heel.

HY-TEST
shrunken
leathers



H510 — Air Cushion Cork Sole and Heel Oxford featuring new Brown Shrunken Leather upper; brown Air Cushion Cork sole and heel; completely Dacron stitched.



H204 — Maple Color Moccasin featuring new Maple Shrunken Leather upper; natural Nuclear Resist-Oil sole, brown half rubber heel.

HY-TEST  **SAFETY SHOES**

DIVISION

INTERNATIONAL SHOE COMPANY
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WHY SETTLE FOR LESS? . . .

Buy HY-TEST Get the Best!

Keeping Up with the Parade

"SOMETHING OLD, something new," are parts of the traditional bridal costume. You could say the same about the program of the 42nd National Safety Congress. Its deliberations ranged from such perennial problems as getting reluctant foremen interested in safety to topics as modern as nuclear developments.

That would be true of any safety conference—or meetings in other fields, for that matter. And how many publications could you glance through without finding some familiar bits of information?

Those of us who get an inferiority complex because we find it necessary to keep on emphasizing the obvious should find some consolation in the observations of a safety-minded executive, Mr. Edward C. Duffy. "In attacking the problem of accident prevention, the obvious seems to require almost endless repetition," he says in the leading article of this issue.

That is merely repeating what every teacher knows.

Transactions of earlier Safety Congresses contain much material that's as good as ever today. We're still threshing out many of the same old problems, particularly those which involve the human element.

And each year a new crop of safety men comes up for the freshman course.

Some information, of course, does become obsolete in the light of later discoveries. But the biggest changes in accident prevention techniques have been the result of expansion in all fields of human activity.

The operating man of 1912, no less than his contemporary safety man, would be amazed at today's factories. And he would be even more bewildered if he tried to drive a car of that vintage in today's city traffic with reactions tuned to the conditions of the same period.

And the men of science remind us that we really haven't seen anything yet.

Safety has had to move fast to keep up with the parade. And the pace will not be slackening.

An encouraging aspect of our progress to date has been the broadening of participation in the safety movement. No longer is it an activity limited to a specialized group—the professional safety men.

Engineers in many fields and specialists in occupational and public health are making important contributions to our technical knowledge. Advertising and public relations men and women are helping us to improve our methods of communication. Operating men are becoming increasingly aware of safety's part in the whole picture. And safety men are becoming increasingly practical in their attitude toward operating problems.

This wide representation of interests has brought the safety movement some valued allies. The joint efforts of all will be urgently needed to keep our nation—and the whole free world—strong to meet domestic and international problems.

The Six C's

*And how they can
affect our lives*

By NED H. DEARBORN



SOME of us remember the first 15 years of this century—a period of peace and prosperity. We worked and played in an atmosphere of friendliness and satisfaction. We went to school to teachers who were secure and confident. As students we read about our own wars, but they were vague and remote.

We read about Caesar, Hannibal, Alexander the Great, Catherine the Great, Napoleon, Bismarck and their like. But they were akin to the legendary characters of Greek, Roman, and Norse mythology, and they and their conflicts, ambitions, and achievements belonged to hazy yesteryears.

We regarded western civilization as synonymous with Christianity, and it largely was. It seemed a good civilization—a growing and maturing civilization where liberal democracies were developing, a civilization built on the Christian ethics of the fatherhood of God, of love, of the

brotherhood of man and of the Christmas chant, "Peace on Earth, Goodwill to Men."

Our knowledge of America was limited, but not nearly as much as was our knowledge of other nations in western civilization. And as to the Orient it could be said that we were in a state of abysmal ignorance. Orientals were little yellow and brown people who made rugs and silk and who raised rice and tea. Africa was the home of the black man.

The river of time flowed on, lazily and smoothly. Then came June 28, 1914. The Austrian Archduke Francis Ferdinand was assassinated at Sarajevo.

Aftermath of War

The world hasn't had a moment's peace since. Love and compassion and confidence have been replaced by hate and fear and distrust. After the ghost of Wilhelm II was laid, we have read about and felt the violent effects of Mussolini, Hitler, Stalin, Chou En-lai. And we have learned of places we never knew existed. New faces and places emerge overnight to continue the accelerating pace of apprehension and uncertainty.

A galaxy of confusing problems the world over and America's new position in the family of nations combine to create a feeling of frustration. No one of us can know, or even have access to, the facts required for rational conclusions about the hundreds of questions and problems—political, social, economic, military—that press in on us from all directions.

We are prone to resort to emotional reactions. That is like a cat chasing its tail. Emotional behavior causes more frustration. More emotional behavior follows, and so more frustration. The sober fact is that we still have not as a nation, nor as individuals, adjusted ourselves to the changes following that June 28, 1914. The rise and spread of communism, the increasing numbers of independent Asiatic states, the deep and sinister rumblings of darkest Africa—these and many more overwhelm and mystify our minds and hearts.

So today—and let's face it—western civilization, with its years of complacency about its various forms and degrees of liberal democracy, actually faces the threat of defeat. We lack the fanatical zeal of the communists. We still

This address was presented by Ned H. Dearborn, president of the National Safety Council, at the Annual Meeting of Members, 42nd National Safety Congress.

believe in liberal democracy, but we take it altogether too much for granted. Right here in America we are in danger of losing our morality as expressed heretofore in liberal democracy and founded on the religious ethics of the western world. The flame of aspiration, hope and courage in the name of our freedom is sputtering and could be extinguished.

This is, of course, a gloomy picture. It is presented in that way with solemn intent and conviction. The solutions to this general problem are many and doubtless some are still to be discovered. This is not the place, nor is there time, for a full dress rehearsal of analytical, comprehensive, and profound discussion of possible solutions.

This does seem, however, to be the place and time to emphasize the supreme importance of safety. Many of the things which are wrong with the world generally are also wrong with our private lives and our private and business relationships, and these are the kinds of things that cause accidents as well as international difficulties.

The economic loss from accidents is horribly great for the nation, for business and for the individual citizen. But at least it is calculable. The social loss, however, is incalculable. Who can measure the privations caused by the accidental death of the family supporters? Who can measure the heartache, misery, grief, despair, and loneliness caused by the needless accidental death of a child? Who can measure the social loss caused by crippling injuries, permanent or temporary? Who can doubt that all these contribute to our national and personal frustration?

You and I in safety are given a wonderful opportunity, a great privilege, a sobering responsibility. You and I can reduce this tragic loss by our part in a great crusade, by our intelligent and consecrated participation in a dynamic, effective program of accident prevention. Whoever we are, whatever our status—you

and I have the "chance of a lifetime."

Working in the field of safety with all our strength and mind and soul will reduce our own debilitating frustration. That in itself will contribute to the moral and material strength of our nation. Our emotional life will be stabilized, our feeling of frustration thwarted, our usefulness increased, and our enjoyment of the good things of this earth richly enhanced.

Thus we arrive at the topic of this discourse—"The Six C's." These "C's" are intended as suggestions for the thoughts and practices of safety workers. They are not new ideas. Rather, they are basic needs of human nature which are essential to the effectiveness of your work and mine. If more attention were paid to them it would have a profound effect on the world problem, as well as on the accident problem.

1. **Cooperation**—not Conflict. This has been one of the most important planks in the platform of the National Safety Council. It has been practiced as well as preached. Though we are still far from fully realizing the ideal of cooperation there is no doubt that great gains have been made.

Cooperation means working together. In areas of social welfare—safety for example—it implies planning together, a clear cut division of responsibilities, teamwork in safety projects—locally, statewide, and nationally. It is a must.

THE SIX C's

1. **Cooperation**
2. **Consideration**
3. **Cognizance**
4. **Comfort**
5. **Confidence**
6. **Conduct**

A single instance in another field should be completely convincing regarding the efficacy of cooperation. The American Red Cross in case of a disaster—a flood, for example—cooperates with officials and other agencies in the removal of families to safe quarters, providing shelter, food, and other supplies, medical services, etc. When the flood subsides the families are safely returned to their homes and assisted in the resumption of normal living.

Imagine, if you can, all this being done competitively. Impossible! Cooperation is the only effective way, involving scores, hundreds, even thousands of people working together under the leadership of the Red Cross to achieve a common objective. The Green Cross must more and more be the symbol for rallying the forces of accident prevention into a cooperating whole. Nothing less will ever be effective.

2. **Consideration**—not Curtness. You and I like to be treated kindly. Consideration at home, at play, in transit, and at work are all appreciated. It is a basic human need. We feel warm inside when a courteous driver motions or says in effect, "You first." We say, "Thank you" when someone holds a door open for us.

And remember—consideration breeds consideration. We are waiting on the corner. Someone approaches and asks if we are waiting for a taxicab. We say "Yes" and he replies, "Well I'll take the second one then." Immediately we reply, "Can't I drop you off on the way to my destination?"

And how about our every-day jobs? At work, Mr. Safety Man, does your superior officer treat you with consideration? Do you enjoy it? Do you then go about your own work with greater cheer and vigor? Of course you do.

Try a simple experiment. Treat taxicab drivers, your family, your employees, headwaiters, labor leaders, your "bosses" as though they were human beings. You will be surprised by the uni-

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Men working. Maintenance of a 4 kv circuit is made safer by rubber protective equipment, such as line hose and rubber sleeves and gloves. Linemen, groundmen and foremen also wear safety glasses and use bucket and rope for hoisting tools

Triple Duty

By EDWARD C. DUFFY

Customers must have reliable service. Employees must have fair, safe working conditions. The investors deserve a break, too. There need be no conflict among these goals

A PUBLIC UTILITY has a triple responsibility. It must furnish reliable service to customers at a reasonable cost. Employees must feel they are working for a good company for fair wages and under safe working conditions. Investors in the company's securities must receive a fair return on their investment.

All three conditions must be satisfied simultaneously or there will be some bulging at the seams. This is true of any industrial organization but the problem of service with safety has been accepted by the utilities as their special problem because of the special hazards of their services and their broad contact with the public.

If I seem to be emphasizing the obvious, let me say here that in attacking the accident problem the obvious seems to require almost endless repetition.

Let us talk first about our responsibility to the public. In this modern age a utility is required to furnish continuous electric and gas service to its customers. We owe it to the people of the community who depend on us for power to operate their water plants and sewerage systems, to



EDWARD C. DUFFY is Vice-President, Long Island Lighting Company, Mineola, L. I. This article has been adapted from an address before the 24th Annual Convention, Greater New York Safety Council, April 8, 1954.

keep factories going and homes and shops lighted, to operate life-saving equipment in hospitals, and for a multitude of electrical appliances in the home, and gas for their stoves, water heaters and house heaters.

Since this service is so essential to all, any fault causing interruption must be repaired without delay. But electricity, for instance, is a product that demands respect, regardless of voltage. In such a situation does service come first? Or does safety?

Well, in our book, there is no conflict, and no choice has to be made. The right way to do a job is the safe way—and we want the job done the right way. That's a



Handling a traffic diaphragm in machine overhaul. Hard hats, safety shoes, safety glasses and gloves are worn.



Outage repair work at a coal unloading dock at the base of coal tower. Welder is wearing the customary helmet, gauntlet gloves, apron, and vest and welding rods are in a container. Men working on bucket pin wear hard hats, safety glasses and gloves.

ployees are involved in accidents. Many accidents do not result in personal injury, but nearly all accidents result in damage to equipment and loss of time.

So, to revert again to the obvious, it seems perfectly clear that we should do everything possible to prevent accidents so as to give our customers the continuous service they deserve and that we want them to have.

Now let's talk about our responsibility to investors. Our com-

pany isn't a big company if you're thinking about something like Consolidated Edison Company or Commonwealth Edison, or Pacific Gas and Electric. But we aren't one of the small companies either. We have about 5,300 employees and we're growing very fast, as measured by the addition of about 30,000 electric customers and 15,000 gas customers each year.

Our compensation insurance is carried by the Utilities Mutual

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→
This seven-man line crew is on its own when out on the job. It is composed of one foreman, four linemen, one groundman and one winch-truck operator. Hurricanes Carol and Edna, which made much extra work for utilities along the Atlantic seaboard, again showed the importance of safety training.

matter of training, vigilance, and cooperation of the supervisory forces and the "rank and file." I think every utility today is working toward that end; I know we are. We can't give the public continuity of service if our em-



42nd Safety Congress Opens

International participation growing . . . Adopt program to face competition for attention in changing world, speaker urges

MANY countries were represented in the vanguard of some 12,000 delegates meeting in Chicago for the opening of the 42nd National Safety Congress and Exposition on Monday morning, October 18. Included were 40 persons from Europe, Latin America and Africa, in addition to Canada, which has never been regarded as a foreign country in the safety movement. West Germany was again represented by a group of 14 engineers who have been spending some time in the U. S. A. studying safety techniques. Both the State and the Department of Labor have recognized the National Safety Congress as a focal point for those from other countries.

"We are not far from being an international Council," said President Dearborn in introducing representatives at the Annual Meeting which opened the week's activities.

Gray skies and a chilling rain greeted the opening of the Congress and many of those present had come from regions which had felt the force of hurricane and flood. But in the grand ballroom of the Conrad Hilton Hotel the weather was forgotten. And by noon the clouds had parted and the sun was shining hospitably.

Following the singing of the

National Anthem and the invocation by Dr. Kenneth Hildebrand, introduced as the "unofficial chaplain of the National Safety Council," the program got under way.

President Eisenhower's greeting to the Congress, expressing his personal and official appreciation of the work of the safety movement, was read.

Copies of the proposed changes in the Council's by-laws to be submitted to the Board of Directors, and the list of officers presented by Arthur W. Wallender, chairman of the nominating committee, had been mimeographed and distributed through the audience. These were approved in less than 15 minutes, setting a new record for speed in transacting the business part of the program.

E. F. du Pont, director of employee relations, E. I. du Pont de Nemours & Co., was re-elected chairman of the Council's Board of Directors. Ned H. Dearborn continues as president.

Two new vice-presidents were elected. William H. Lowe, treasurer of the Inland Steel Company, Chicago, succeeded George F. Getz, Jr., as Vice-President for Finance and Treasurer. H. J. Spoerer, director of industrial relations for the Youngstown Sheet and Tube Company, was elected

Vice-President for Industry, succeeding E. C. McFadden.

All other officers continue in office. A complete list of officers, directors and trustees elected at the Congress will be found on page 26.

Major General George C. Stewart, who has been appointed to the newly created post of general manager of the Council after a distinguished career as a military administrator, was introduced to the audience.

This Changing World

"You're talking to a changing world—and if you're talking with yesterday's words and pictures, better look for new ones," was the challenge given by Jean Wade Rindlaub, who ably filled the distaff part of the program at the Annual Meeting.

Listing just a few of the competing thoughts and desires and the advertising appeals that run through the individual's mind, Mrs. Rindlaub, who is vice-president of the advertising firm of Batten, Barton, Durstine and Osborne, commented:

"And then you come along and just want to tell them to 'play it safe!' Brother, you've got to find a way to say it—if you want it to dig a hole for itself in those busy heads.

"If your program hasn't got a basic theme, it needs one."

From her experience in the Advertising Council's safety program, and her own experiences as a parent and citizen, Mrs. Rindlaub discussed the various appeals that influence people.

"The job of safety education in, in the fullest sense, a total job," said Dr. Henry T. Heald, chancellor of New York University, and

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FROM PRESIDENT EISENHOWER

THE WHITE HOUSE
WASHINGTON

Denver, Colorado
October 9, 1954

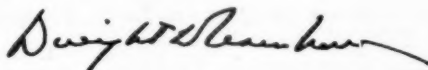
Dear Mr. Dearborn:

I gladly greet all delegates to the National Safety Congress. To me, this meeting symbolizes the determination of our people to end the tragedy and disgrace of our huge accident toll. We are gaining in our war on accidents, thanks in major degree to the efforts of the thousands of safety leaders attending this Congress.

I am greatly encouraged by the increasing enlistment of top-level volunteer leadership in the safety movement. I am encouraged, too, by the aroused spirit of public officials and citizens in providing and demanding vigorous action to prevent accidents. It is my belief that the work of the President's Action Committee for Traffic Safety and the President's Conference on Occupational Safety is steadily increasing the public's awareness of the need for vigorous action in accident prevention and thereby is helping the professional safety people in their great work.

By working together -- the amateurs and the professionals, the public officials and the private citizens -- we can further reduce the accident toll. We must, and I am confident that we shall, win over this serious problem as we have won over many others in the past.

Sincerely,



Mr. Ned Dearborn
President
National Safety Council
425 North Michigan Avenue
Chicago 11, Illinois

formerly a president of Illinois Institute of Technology and a vice-president of the National Safety Council.

"It must be concerned not just with the home, or work, or office, or recreation, but with all of these, all the time. It is not just the training of a physical reflex in driving, or the circulation of literature in the plant, or any of the other single facets of the program; it is the conditioning of the individual to function safely as a matter of course, as a habit."

President Dearborn's address, "The Six C's," is printed elsewhere in this issue.

The week end before the official opening of the Congress was a busy one for many who took part

in it. Officials of local safety councils and National Safety Council chapters held sessions Friday and Saturday and numerous committee meetings were held. Exhibitors at the Exposition were busy getting their booths ready for visitors.

Sunday morning the Industrial Conference met to report on the work of the Council's Section and the various committees during the past year. Committees carrying on important projects which receive little publicity are: Audio-Visual Aids, Congress Program, Industrial Safety Training, Mechanical Safeguarding, NFPA-NSC Liaison, Nuclear Energy, Off-the-Job Safety, Publications, Research Projects, Small Business and Associations, Standards, and Statistics and Contests.

Herman J. Spoerer, director of industrial relations for the Youngstown Sheet & Tube Company, and the Council's Vice-President for Industrial Safety, was elected chairman of the Industrial Conference, and Donald G. Vaughan, Aetna Casualty & Surety Company, was elected vice-chairman.

Honorary life memberships in the Conference were presented to W. Dean Keefer, Lumbermen's Mutual Casualty Company, E. C. McFadden, Texas Employers Insurance Association, and C. H. (Bud) Wiser, formerly with Southwestern Bell Telephone Company.

The Safety Exposition, with its colorful displays of equipment and products for accident and fire prevention, occupational and personal hygiene, and related purposes, filled every available foot of space in the Exhibit Hall on the Lower lobby with additional booths on the second and third floors.

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NEXT YEAR

The 43rd National Safety Congress and Exposition will be held in Chicago, October 17-22. Headquarters will again be in the Conrad Hilton Hotel, with meetings held also in other downtown hotels.



← Scene from the color slidefilm, "Bar It Down." Miner is demonstrating the safe position in taking down the "loose."

Developing respect for loose slabs like this and safe practices in removing dangerous "loose" is a primary purpose of the campaign.



Mines Fight Falls of Ground

Intensive drive against the industry's worst underground hazard launched by Mining Section

FALLS OF GROUND, mining's No. 1 accident killer, will be attacked in an intensive new program to be launched by the National Safety Council on January 1, 1955, with the goal of slashing the annual killed and injured toll by 50 per cent.

"Although we realize we are setting our sights high, we feel this is the only way to attack a problem that results in death or injury to one out of 50 noncoal miners each year," said John L. Boardman, chairman of the Anaconda Copper Mining Company, bureau of safety, and chairman of the campaign.

"Falling ground is and always has been the biggest accident problem in the entire mining industry, accounting for about 420 deaths and 7,500 disabling injuries annually in United States mines alone."

The National Campaign to Reduce Falls of Ground Accidents in Mines is sponsored by the Mining Section of the National Safety Council. All noncoal mines in the United States and Canada may participate in the campaign, providing 25 or more employees work underground. Membership in the Council's Mining Section is not required. Nonmember companies may obtain Council materials for conducting the campaign at member prices instead of the usual charge of double the member cost.

Endorsing and cooperating in the campaign are the U. S. Bureau of Mines, the American Mining Congress, state and provincial mining departments, mining associations, mining publications and others having an interest in safety in mines.

Requirements for participating

in the campaign are:

1. Companies that operate two or more mines must enroll each mine separately.
2. Each participating company agrees to provide the Mining Section with a simple report of injuries resulting from falls of rock and ore for the year, or two or three years, previous to 1955, depending on the period for which records are available.
3. Each participant agrees to send in a report of accident experience at the end of the first six months of the campaign and a final report covering the last six months.

The falls of ground campaign will cover the calendar year ending December 31, 1955. To facilitate promotion of safety in participating mines, the Mining Section will provide a suggested plan for systematically using materials and carrying on activities. Each company may select materials and activities most suitable for its needs and schedule them dur-

ing the campaign as deemed most effective.

A partial list of campaign materials includes:

Posters. A special series of 12 posters, one for each month of the campaign, printed on heavy stock in two colors, and dealing with safe practices in detecting loose ground, barring down, etc.

Employee training booklets. Four pocket-sized illustrated booklets printed in two colors will contain eight or nine important facts about falling ground accidents and major safety measures for preventing them. They are intended for employee distribution at three-month intervals.

Visual Aids. A sound slide film, "Falling Ground," produced by the Anaconda Copper Mining Co., the Mining Section's color film, entitled, "Bar It Down," which comes with a leader's guide, and a safetygraph on falling rock hazards. The safetygraph, produced by the Mining Section, is a convenient visual aid for use in teaching safe practices to small groups.

Banners. A banner for use at the entrance of the mine, collar of the shaft, or at a station to remind employees of the hazard



Safe timbering procedures will be a major subject in the national campaign for preventing fall-of-ground accidents. (U.S. Bureau of Mines photo)

of falling ground and serve to publicize the campaign.

Publications. Council publications such as data and information sheets will be provided for reference for those in charge of safety instruction.

Safety stunts: A choice of several safety stunts for creating and

maintaining interest in the campaign will be provided participants.

The National Safety Council will award a Certificate of Achievement to all mines which carry on a minimum of four safety activities during the campaign.

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One of the series of 12 posters to be used monthly throughout the campaign against falls-of-ground injuries.

This certificate in recognition of outstanding achievement in preventing injuries from falls-of-ground will be awarded by the National Safety Council.



Officers, Directors and Trustees National Safety Council, 1954-55

Elected at 42nd National Safety Congress

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For Local Safety Organizations

Robert R. Snodgrass, president, Atlas Auto Finance Co., Atlanta, Ga.

For Membership

Robert T. Ross, manager, employee service, industrial relations, Ford Motor Co., Dearborn, Mich.

For Public Information

Boyd Lewis, vice-president and executive editor, NEA Service, Inc., New York.

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Dr. Lowell B. Fisher, state chairman, North Central Association of Colleges and Secondary Schools, University of Illinois, Urbana, Ill.

For Traffic and Transportation

Franklin M. Kreml, director, Traffic Division, International Association of Chiefs of Police, Evanston, Ill.

For Women's Activities

Miss Marion E. Martin, Commissioner of Labor and Industry, State of Maine, Augusta, Me.

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George C. Stewart, general manager, National Safety Council, Chicago.

SECRETARY

R. L. Forney, general secretary, National Safety Council, Chicago.

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H. H. Greenwald, director, Accounting Division, National Safety Council, Chicago.

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R. H. Ferguson, assistant director, Industrial Relations, Republic Steel Corp., Cleveland, Ohio.

Dr. Lowell B. Fisher, state chairman, North Central Association of Colleges and Secondary Schools, University of Illinois, Urbana, Ill.

Kirk Fox, editor, *Successful Farming*, Meredith Publishing Co., Des Moines, Ia.

Paul E. Gurske, director, Bureau of Labor Standards, U. S. Dept. of Labor, Washington, D. C.

Leonard Haeger, director, Technical Service and Research Dept., National Association of Home Builders, Washington, D. C.

O. R. Hartwig, consulting safety engineer, Crown Zellerbach Corp. and other companies, Portland, Ore.

Dan Hollingsworth, manager, Oklahoma City Safety Council, Oklahoma City, Okla.

Dr. Harold K. Jack, supervisor, Health and Physical Education, Safety and Recreation, State Board of Education, Richmond, Va.

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Joseph M. Kaplan, secretary-manager, Greater Los Angeles Chapter, National Safety Council, Los Angeles, Calif.

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Merwyn A. Kraft, director, Dept. of Personnel and Accident Prevention, American Transit Assn., New York.

Franklin M. Kreml, director, Traffic Div., International Assn. of Chiefs of Police, Evanston, Ill.

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Harry Read, executive assistant to the secretary treasurer, Congress of Industrial Organizations, Washington, D. C.

Mrs. Jean Wade Rindlaub, vice-president, Batten, Barton, Durstine & Osborn, New York.

A. V. Rohweder, supervisor of safety and welfare, Duluth, Missabe & Iron Range Railway Co., Duluth, Minn.

Martin Ronning, chief engineer, Power Machinery Div., Minneapolis-Moline Co., Minneapolis, Minn.

Robert T. Ross, manager, Employee Service, Industrial Relations, Ford Motor Co., Dearborn, Mich.

P. L. Siemiller, general vice-president, International Association of Machinists, Chicago.

Lee E. Skeel, Chief Justice, Court of Appeals of Ohio, Eighth Appellate District, Cleveland, Ohio.

Robert R. Snodgrass, president, Atlas Auto Finance Co., Atlanta, Ga.

Leslie J. Sorenson, City Traffic Engineer, City of Chicago.

H. J. Spoerer, director of industrial relations, The Youngstown Sheet & Tube Co., Youngstown, Ohio.

J. C. Stennett, manager, Accident and Fire Prevention Dept., National Assn. of Mutual Casualty Companies, Chicago.

R. S. Stevenson, executive vice-president, Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

W. A. Stewart, American Optical Co., Southbridge, Mass.
Randall C. Swanson, farm safety specialist, University of Wisconsin, Madison, Wis.

Col. W. L. Tubbs, Assistant for Ground Safety, DCS/Personnel, HQ U. S. Air Force, Washington, D. C.

Arnold H. Vey, director, Bureau of Traffic Safety, Dept. of Law and Public Safety, Trenton, N. J.

Arthur W. Wallander, assistant to the president, Consolidated Edison Co. of New York.

Miss Judith Waller, director of public affairs and education, National Broadcasting Co., Chicago.

Mrs. George Welles, Jr., Duluth, Minn.

Dr. George M. Wheatley, 3rd vice-president, Metropolitan Life Insurance Co., New York.

E. L. Wheeler, president, Wheeler Protective Apparel, Inc., Chicago.

Dr. William P. Yant, director of research and development, Mine Safety Appliance Co., Pittsburgh, Pa.

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Metal-working plants have high concentrations of values and serious fire hazards. The fire in the General Motors plant in Livonia, Mich., in August 1953 was one of the most serious in the industry.

Metal-Working Plants Have High Fire Losses

Survey by National Board of Fire Underwriters lists important causes

LARGE-LOSS FIRES in both heavy and light metalworking plants have multiplied 17 times since 1942. The increase is due in part to higher concentration of values in buildings, equipment and products exposed to fires and to hazardous new auxiliary processes and mixed occupancies.

These facts are brought out in a 57-page survey on fire hazards and safeguards for metalworking industries issued recently by the National Board of Fire Underwriters.

According to the NBFU, there were about 175 large-loss fires—those that result in damage of

\$250,000 or more—in the metalworking industries between 1942 and 1953, with an aggregate loss of approximately \$150,000,000 as contrasted with the period from 1931 to 1942, when only 18 large-loss fires were reported with aggregate losses of \$8,500,000.

The survey was made by the research division of the National Board's Committee on Fire Prevention and Engineering Standards. It was directed by John A. Neale, NBFU's chief engineer, and Mathew M. Braidech, research director.

Several new factors have entered the fire safety picture in

recent years. But what is more important, the survey shows, is the presence of old fire causes in a more pronounced form.

Excessively large unprotected areas are used in a considerable portion of metalworking production. A good number of metalworking plants are utilizing woodwork and plastic materials in their fabrication processes, and are thus creating other industries within their own industry. Flammable liquid fires continue to predominate in this industry as more of these fluids are being used than ever before.

Automatic sprinklers are not

too common in many phases of this industry, for example: 26 out of 27 large-loss metalworking fires which occurred in 1951 were in plants not equipped with sprinklers. Insufficient fire extinguishing facilities due to lack of water supplies and ineffective fire-fighting units in some of the smaller communities have been responsible for the uncontrolled spread of fire.

Fires have also gained considerable headway because of delayed detection and neglect in promptly calling the fire department. Maintenance fires caused by carelessly used welding torches or involving sawdust used for the removal of oil from floor areas in machine shops continue to prevail in the industry.

Metal dust explosions have caused some of the most severe losses of life. In recent years hydraulic fluid fires, molten salt baths, and quench tank fires as well as electroplating and electro-polishing have presented troublesome control problems.

Newer processes and operational techniques are rapidly entering the already complex production in these diversified industries, and are requiring more careful analysis of the associated fire hazards.

Scope of Inspections

Metalworking plants, in general, require well organized programs of inspection, maintenance, housekeeping, and waste disposal to achieve satisfactory operating efficiency and safety. To prevent fires, it is necessary to recognize, in advance, the inherent hazards and determine the possible contributory causes in any manufacturing process.

Cooperation with fire authorities and insurance inspectors will provide effective guidance in fire safety and will also serve as an additional check on the efficiency of the plant inspection procedure.

A typical plant inspection program should cover the following:

1. General housekeeping.
2. Materials handling and storage.

WHY FIRE LOSSES ARE HIGH . . .

- Excessively large areas without fire walls and fire doors
- Higher concentrations of values in buildings
- Increasing use of combustibles in processes
 - Flammable liquids
 - Wood and plastics
 - Metals generating explosive dusts
- Inadequate fire-fighting facilities
 - Automatic sprinklers
 - Water supplies
 - First aid extinguishers and other equipment
 - Trained personnel
- Delays in calling municipal fire departments
- Welding without proper precautions—often by outside contractors
- Use of sawdust for absorbing oil on floors
- Neglect of disposal of combustible trash

3. Plant layout.
4. Heating equipment.
5. Dusts, fumes, gases, and vapor removal.
6. Machine and safety controls.
7. General maintenance.
8. Electrical equipment and lighting.
9. Process equipment.
10. Hazardous chemicals.
11. Lubrication and cleaning methods.
12. Access to over-head equipment.
13. Adequacy of exits.
14. Fire alarm system.
15. Fire protection equipment.

Practically everything in a plant should be inspected at frequent intervals. It will often be discovered that improvements achieved by safety inspections will serve to aid production through safer and better utilization of equipment.

All inspections should include records and be followed by systematically applied corrective actions in order to be effective. This requires the submission of reports to department heads who will direct attention to hazardous conditions and unsafe practices, and thereby maintain interest until the problem is properly handled.

Responsibility for correcting unsafe conditions should be fixed. All fires and explosions in plants

should also be thoroughly investigated to determine the causative factors and the necessary preventive action.

Maintenance

Maintenance is closely integrated with plant inspection. A well-developed maintenance program for the plant buildings, machinery, process equipment, portable tools and all safety and fire prevention equipment is essential for satisfactory production and safety. Equipment that is subjected to a program of preventive maintenance will produce more efficiently, last longer, and operate with more reliability.

Lubrication, cleaning, and repair of machinery are important maintenance jobs in metalworking plants. Many of the larger plants have separate divisions to carry on these jobs. The maintenance men should work closely with production personnel and clear all operations through department supervisors.

Maintenance work performed on processing equipment can itself introduce fire hazards. Many fires have been started because

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THE DIARY OF A SAFETY ENGINEER

A Safety Engineer's Thanksgiving

By BILL ANDREWS

*My God, I thank You for the many gifts
Freely given to undeserving men—myself among
them.
I thank You for all the gifts of food and love
and life,
Laughter, and the quick-dried tear.*

*These gifts I share as being of the breed of men.
Yet there remain some gifts, my Lord, which come
to me as craftsman.*

*So, in my own behalf, and in behalf of those who
share my craft,
I offer thanks that You have moved the hearts of
men
To save their brothers' lives.*

*I thank You, God, because You gave such daring
to some souls
That they would rise to damn as evil the unguarded
gear,
And call the man-trap, hallowed by long use,
A violation of Your moral law.*

*The pioneers who stormed the firetrap, the naked
belt,
The fouled air and the ignorant minds
Have built most well for us, O God who guided
them.
For their courage, vision, wisdom, strength,
we thank You.*

*Your gifts continue, and such unworthy men as I
Have found Your power guides us in the endless
fight
To strip from Adam's world of work
The harm and pain that were no part of Adam's
curse.*

*If I have ever said the word that changed a careless
heart
To safer ways, You spoke through me, and*

*I thank You, God.
If I have ever planned a sound attack
Upon an ancient hazard, I know that You, the
Master Planner, planned.
If my hand has ever traced designs of guards that
really guarded,
I know Whose hand it was that guided mine.*

You told a prophet once that he was watchman
to the people.
If he would relay Your right warnings to them,
Their blood would not be upon his head.
But if he failed to warn, their blood You would
Require from the watchman's hand.*

*My God, I bear the watchman's burden,
As do all safety men,
For pain is evil, and the violent death,
The crippled limb, the eyes that do not see are
evil, too.
My thanks I lift to You that You have given me
An eye to see, an ear to hear, a mind to know,
a voice to speak.*

*And yet, Master of the stately swirl of nebulae
And the inner tumult of the raging atom,
I walk in penitence for errors past
And in some fear that I may fail You more.*

*Since I know well both penitence and fear,
I thank and doubly thank my God
For the richest and most glorious gift of all—
The living, surging HOPE that man may yet
Strike off the man-made chains of accident.*

*And most gratefully I thank my God
For hope that I—that even I—
May yet strike more effective blows against those
chains.
Amen.*

* See Ezekiel 33:1-9

General Stewart Named Council's General Manager



MAJOR GENERAL GEORGE CRAIG STEWART has been appointed general manager of the National Safety Council, a new post created to broaden top-level administration of the Council's expanding activities.

He will assume his new duties in November after his retirement from the Army becomes effective October 31. He is presently serving as director of the Office of Military Assistance in the Office of the Secretary of Defense.

Selection of General Stewart was made after months of screening by a special Council committee of business and safety leaders, said Ned H. Dearborn, president of the Council.

"General Stewart is highly recommended by his superiors and by those who served under him as a man who gets things done promptly, efficiently and pleasantly," Mr. Dearborn said. "His brilliant Army record in military transportation, in combat, and in general administration is testimony to the vigor and imaginative planning he can bring to the Council."

The need for expanded activity in highway safety is in part responsible for the creation of the new general managership, Mr. Dearborn said.

General Stewart was born in Selma, Alabama in 1902. He was married soon after graduation from the U. S. Military Academy in 1923. He has three sons.

He advanced through the grades to his present rank of major general.

Serving on the War Department General Staff

when the United States entered World War II, he was assigned to the Transportation Corps in 1942 and rapidly gained a reputation as a transportation expert.

General Stewart's outstanding abilities in this specialized field were first demonstrated at the Oran landing in North Africa. He successively became transportation chief for the North African Theater of Operations, chief of the southern lines of communication for the invasion of southern France, deputy chief for the European Theater of Operations, and chief for Army Forces in the Western Pacific.

In 1946 he became commanding general of Fort Eustis, Va., and commandant of the Transportation School. The Korean War found him assistant division commander of the Tenth Infantry Division.

He served in Korea as commander of the Inchon base for the 1950 invasion landing, and as assistant division commander of the Second Infantry Division.

He returned to the United States in August 1951 and served on the General Staff of the Department of the Army. He was named director of the Office of Military Assistance, Office of the Secretary of Defense, in 1953.

General Stewart has twice been awarded the Distinguished Service Medal, and the Silver Star Medal. In addition, he has received the Legion of Merit, the Bronze Star Medal, and several decorations from other countries.

Better Than Your Ears

By WILLIAM M. IHDE

For measuring sound and establishing standards of protection, precision instruments are indispensable

DURING the past decade more and more people have become concerned with noise. Manufacturers may have noise problems which affect sales and factory noise problems affecting the health of employees. Trucking companies receive complaints when mufflers are defective.

Manufacturers of airplane propellers and engines, particularly jet engines, find that noise from test stands creates a serious com-

munity problem. Both municipalities and management are becoming aware of the seriousness of these noises and taking steps to remedy conditions.

There is danger of permanent hearing loss when there is prolonged exposure to an intense sound field without protective measures.

Knowing when a noise condition is undesirable or hazardous is the first step toward a better understanding of what should be done about it. Objective means for measuring sound are essential, and criteria for acceptability of sound must be developed. This article will deal mainly with the

WILLIAM M. IHDE is Engineer, General Radio Co., Chicago. This article has been condensed from a paper presented before the Aeronautical Industries Section, Forty-second National Safety Congress.



Figure 1. Sound-level meter (1551-A) in most common measuring position.



Figure 2. Sound survey meter (Type 1555-A). Often time can be saved by using the small meter first. It can point out places which need further study against those which need no further investigation.

technique of gathering data with currently available equipment.

Noise and the Decibel

Before describing equipment and techniques, it is well to be familiar with the quantity we wish to measure. To the physicist, noise is a sound, whose character can be defined and whose properties can be measured with the same equipment that measures other sounds. To the psychologist, noise is an *undesired* sound, as contrasted to music and speech, which are usually desired sounds.

The part of the anatomy which detects sound is the ear. Not everyone appreciates, however, the dynamic range over which the ear operates. Not one electronic instrument built today can cover in one range the minimum level a normal ear can detect to the maximum level it can tolerate without damage. The pressure range is more than ten million to one, which means that any linear scale would be impractical.

What the engineer and physicist have done is to compress this scale mathematically into one called the decibel scale. Thus, the range 0-140 decibels represents a range of pressure ratio from one to 10 million. The decibel represents a ratio and when used in connection with the word "level" always has an implied reference.

This reference is usually given following the quantity, such as 58 db, re 0.0002 microbar, which is the standard reference level. The microbar is one-millionth of normal barometric pressure. This pressure corresponds to a level of 74 db, and atmospheric pressure corresponds to 194 db, re 0.0002 microbar.

One cannot add two decibel quantities any more than he can add $\frac{1}{2}$ and $\frac{1}{3}$ and get $\frac{2}{5}$. There is a mathematical procedure of reducing the fractions to a common denominator before adding. Similarly, there is a mathematical procedure for handling decibels. Thus, 80 db plus 80 db does not equal 160 db, but 83 db.

Instruments

Figure 1 illustrates the modern sound-level meter. It indicates in decibels, re 0.0002 microbar, and measures sound-pressure level.



Figure 3. Sound-level calibrator (Type 1552-A) in calibrating position. It checks both the microphone and the amplifier.

NOISE LEVEL FIELD DATA SHEET (ALTERNATE FORM)

TEST NO.		LOCATION		SKETCH	
DATE		OPERATION			
METER					
ANALYZER					
MICROPHONE					
RECORDED BY					
TEST NO.		REC. BY		SECOND SHEET NO.	
Decibel Range Re 0.0002 Microbar - C Network - Fast Position					
TIME	Overall	16-20	20-100	100-500	500-1000
1					
2					
3					
COMMENTS, DURATION, HRS./WK., NO. WORKERS ETC.					
1					
2					
3					

FIRST SHEET

SECOND SHEET

Fig. 4. Noise level field data sheet developed by Illinois Committee on Noise in Industry sponsored by the Illinois Department of Labor.

Its range with the standard microphone is from 24 db to 140 db. Special accessories permit extending this range up to 190 db.

Before discussing the microphones used with sound-level meters, mention should be made about the weighting networks, designated A, B, and C, which are included in every sound-level meter meeting present ASA standards.

In the early 1930's two investigators, Fletcher and Munson of Bell Telephone Laboratories, ran a series of tests to determine the sensitivity of the ear to different frequencies. They found that for sounds of low-pressure level the ear was much less sensitive to low frequencies than to middle and upper frequencies, but that as sound-pressure level was increased, sensitivity to all frequencies became equal. The curves which represented this effect were called the Fletcher-Munson equal-loudness contours.

To make the sound-level meter compare to the ear in loudness performance at designated levels the ABC, and weighting networks were included in the instrument.

Several microphones are available for use with this instrument. The microphone normally supplied is the Rochelle-salt crystal-diaphragm type. This low-cost device meets requirements very satisfactorily so long as it is connected directly to the input terminals of the instrument, and so long as moderate variations of temperature are encountered. If it is necessary to operate the microphone remotely, cable corrections must be applied, and it is not usable at temperatures above 115 F.

Operation from the end of a cable is handled very nicely by the dynamic microphone. This device is dependable and rugged. It must be used with an impedance matching transformer and is

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Everybody Works for Safety

By ROY M. GODWIN

WHEN management, supervisors and employees work together toward the goal of no disabling injuries, results are almost certain. That, at least, has been the experience of the Philadelphia Electric Company.

Operating under the vice-president of personnel and public relations, the safety department serves in

an advisory capacity on matters concerning the accident prevention program. While carrying out this program is the responsibility of each departmental organization, most safety department activities go beyond the advisory stage.

Here are the highlights of our program, with the camera telling much of the story.



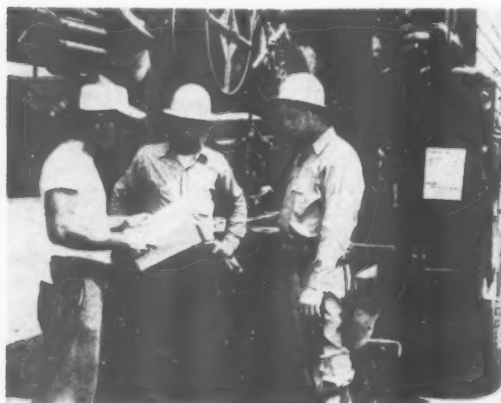
Handling accident cases. Accident reports are received and reviewed daily by our department. Where warranted, contact is made with the department head to prevent a recurrence. Serious or potentially serious accidents are investigated by a committee composed of the department head, immediate supervisors, representatives of the safety department, claims department and those in any way connected with the accident.

Records. We maintain the only authentic records in the company, and these records have been used on numerous occasions by department heads to determine accident proneness. They have also been used in reviewing an employee's overall record in rating him for promotion.

Statistics. Data showing accident trends has done as much, if not more than, anything else in bringing down our accident rate. We prepare monthly analyses of types of accidents for posting on bulletin boards and for supervisors. Condensed reports are prepared for executives.

Contests. A contest is operated among operating groups comprising seven divisions, with sections competing within their respective divisions. For example, in the generating station division, all generating stations and the coal bureau and steam

heat plants comprise this division. Honor and merit certificates are awarded to the section in each division having the lowest disabling injury rate for the year.



Bulletins and posters, both home-made and those purchased from national organizations, are used for circulating among supervisors and for bulletin board display. Here a foreman is going over new posters with his crew.



ROY M. GODWIN is Manager, Safety Department, Philadelphia Electric Company, Philadelphia. He is a past chairman, Public Utilities Section, NSC, and has served on numerous committees of the American Society of Safety Engineers, Edison Electric Institute, American Gas Association and Pennsylvania Electric Association.

→

Engineering contacts are among our major projects. We review with the engineers plans for new plants and improvements in existing plants to eliminate hazardous conditions at the design stage. Hardly a day goes by that we do not have a conference on some project. To our satisfaction, engineers are eliminating many hazards on their own initiative.



Property inspection. We inspect physical property at least twice a year (over 400 locations). In some cases, due to changes and requests from local management, visits may be more frequent. Our inspections often uncover situations that have arisen since the previous inspection. We are getting excellent cooperation from supervisors who often ask for advice.

→

Meetings. Departmental meetings are arranged with the help of the safety department. Films are shown, followed by discussion.

Instruction courses. We cooperate with the personnel research and training division in the preparation of instruction courses and are invited to speak at some of these sessions.



First aid. We teach a limited course and keep up to date on improvements in technique.

→

Safety devices. We investigate and test safety equipment and products. Not all of those offered meet our specifications.



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American Gas Association's Accident Prevention Course at Amarillo, Texas. Visual aids are used extensively and lectures kept to a minimum. At left, front, is Ernest Beaumont, The Peoples Gas Light and Coke Company, Chicago; right: Marvin Travis, Northern Natural Gas Company, Omaha.

An Industry Goes to School

Safety course developed by American Gas Association

to be available to utility companies on a regional basis

"ACCIDENTS Don't Happen—They Are Caused!" That's the central and often-sounded theme of the new Accident Prevention Course of the American Gas Association which ended a three-week ground-breaking tour on September 8 at Fort Dodge, Iowa.

Test conditions for the pilot run of the course, which is officially titled "Accident Prevention Through Informed Supervision," were supplied by the Northern Natural Gas Company, Omaha. More than a hundred of Northern Natural's supervisors and foremen, drawn from all over its system, attended the course's two-day "schools" at Amarillo, Wichita, and Fort Dodge.

Sun-browned, hard-handed gas pipeliners from Texas and Oklahoma and Kansas met in the course's "schoolrooms," swapped tall tales and handshakes with

engineers and compressor men from Iowa and Nebraska and Minnesota. No harder test for any set of instructions could have been devised than to ask these practical experts to be its judges!

Marvin Travis, Northern Natural's safety director and a member of AGA's Accident Prevention Committee, smoothly filled a triple assignment as host, chairman of arrangements and course instructor. Charles Williams, safety director of the Gas Service Company, Kansas City, ably carried the ball for committee member H. W. Johnson, Gas Service's general manager, who was able to attend only one of the meetings. Third member of the field instruction panel was AGA Safety Consultant R. N. Papich.

The genesis, framework and purposes of the course were outlined at the Amarillo kick-off by Ernest Beaumont, safety director

for The Peoples Gas Light and Coke Company, Chicago. Said Ernie Beaumont, veteran member of AGA's Accident Prevention Committee and long-time champion of the safety course concept:

"This course has been designed specifically to meet what the Committee feels are the industry's needs in the way of a safety program. It embodies the Committee's recommendations as to format and subject matter, and it seeks to achieve one of the Committee's primary goals: the channeling of accident prevention fundamentals *directly* to foremen, supervisors and superintendents. They are the key men, and any safety program must stand or fall on the thoroughness of their understanding of it and their enthusiasm for it."

A noteworthy job of streamlining and concise packaging, the

new course leans heavily on visual aids, keeps lectures to a minimum. Constantly repeated and emphasized by charts, graphs, films, sound slides and discussions are these main themes:

1. Nothing is more important than human life and limb.
2. Accidents don't happen; they are caused!
3. Unsafe conditions and unsafe methods are the principal causes of accidents.
4. It pays—in dollars and cents—to prevent accidents.
5. The cost of accident prevention is not great—and regardless of the size of the company, it can be done.
6. Direct costs of accidents are always greater than prevention costs; indirect costs infinitely more so.

At the beginning of each school individual binders containing paper, pencils, charts and gas industry statistical data sheets are handed around. They become the property of each student and, augmented by pamphlets and manuals distributed during the course, form each man's personal accident prevention and safety source file.

As the course progresses, students are required to work out various graph plottings showing the industry's accident experi-

ence in comparison with other industries, to jot down specific data as it is given by the instructors or the various visual aids and to work the formulae for determining accident frequency and severity rates.

The responsibility of supervisory personnel in implementing safety programs is heavily stressed. "One of the fundamental causes of all accidents," said Instructor Williams during a dis-

cussion session, "lies in the failure of supervisors to explain the safety problem, to convince his men that the safe way is the right way, to repair damaged equipment and to use foresight in planning work involving hazards. As Ernie Beaumont pointed out, one of the chief aims of this course is to give supervisory personnel new accident prevention techniques, new ideas and methods which they can use in the big task of reducing the gas industry's accident rates."

AGA's Papich explained another of the course's objectives: "There is no reason," he said, "why the gas industry should not be the safest industry in America. The excuse that gas is inherently unsafe doesn't stand close comparative analysis with other industries of like size and hazard characteristics. Gas in itself rates very low as a cause of accidents.

"It's the run-of-the-mill industrial type of accident that is allowed to run relatively unnoticed and unchecked. And this is one of the main reasons why, during its recent period of expansion, the gas industry definitely did not keep its accident prevention efforts consistent with its growth.

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Charles Williams demonstrates NSC Safetygraph in conducting supervisors' meetings.



Field teaching staff and visitors, left to right: L. F. Dippel, assistant to president, Northern Natural Gas Company; R. N. Papich, AGA safety consultant; P. T. McDonough, superintendent, Northern Natural Gas Company; Charles Williams, The Gas Service Company. On podium is Norman Travis.

Heard at the Congress

Excerpts from papers at Subject and Sectional Meetings,
42nd National Safety Congress

Preventive Maintenance

Preventive maintenance is the safety program of equipment just as education is the safety program of personnel.

The benefits of a sound preventive maintenance program cannot be denied. It brings law and order into what could be nothing but chaos. Where you have law and order, you have control and safety. Where you have safety, you have a shop operating on sound, modern methods.

—Gordon Edwards, Steep Rock Iron Mines, Ontario (Mining)

Eye Shields Save Money

A penny saved may be a penny earned—but not when it comes to eyes. A dollar invested in eye protection means \$1,924 saved.

Eye protection has prevented five serious eye injuries within the last eight months in one of the six Akron Firestone plants.

Sixty per cent of all Firestone employees are furnished goggles, shields or glasses. In several plants, 100 per cent eye protection is demanded on hazardous occupations, such as welding, grinding, chipping, machining and the handling of chemicals and acids.

—Alfred E. Bernel, Firestone Steel Products Co. (Rubber)

Inviting Dismissal

In the lumber industry, the only way a man can be sure of holding his job is to work safely. Unconditional acceptance of safety regulations is among the main conditions for employment at many operations. To disregard these conditions is inviting dismissal.

After a new employee is hired, his record is checked after a 30-day probationary period and from

three to six months later. This evaluation is made with special emphasis on his attitude towards and response to suggestions about safe working habits.

If he fails to work safely, he hasn't any chance.

—J. G. Stothers, Western Forest Industries (Wood Products)

Saved Time, Too

A forge shop superintendent once resented a suggestion that it was dangerous for workmen to climb around the furnace to adjust burners.

However, after having a catwalk built to make the task safer, the man was highly pleased because it not only made the adjusting safer, it cut down the time to do it from 10 to only two minutes.

There are many other examples of improvements made to promote safety ending up saving money as well.

—Robert E. Sanford, Clearing Machine Corp. (Power Press)

Eye Protection Pays Off

Eighty-two pairs of smashed safety glasses are convincing proof that an industrial eye protection program pays off. In money payments alone, savings were enough to pay for the 10-year operation of the program.

The program cost \$400,000. During the 10 years, 82 pairs of smashed safety glasses have been accumulated which, in the opinion of a qualified committee, saved one or both eyes from blindness as a result of an accident. At the rate of compensation awards in New York—\$5,120 for the loss of an eye—these accidents would have resulted in minimum payment of awards totalling \$419,840.

Not one eye has been lost in the machining or foundry areas in 10 years since the inception of the vision program.

—Dr. Herman Sager, Sperry Gyroscope Co. (Better Seeing)

Sign of a Good Operator

Car "cowboys" and "wrench-happy" mechanics usually carry their bad habits into their work and increase the accident hazards.

The most important element in the operation of any machinery is the operator. You can tell a lot about an operator by the way he takes care of his car.

A "cowboy" is a fellow who has no respect for his car. It's important for a man to respect a good machine before he can operate it properly.

Far too many service calls are necessary because some "wrench-happy" pressmen are tempted to make changes in special adjustments that should not be touched.

—Carl O. Siebke, Miller Printing Co. (Printing & Publishing)

Question Your Methods

The engineer must remember that there are two elements to every problem: human and technical.

The greatest obstacle to methods improvement has not been created by technical difficulties. Rather, it is set up by the mental attitude of people doing the work who feel they are already using the best possible methods.

Question methods being used. The minute you say a job cannot be improved, you're through, even if you're an expert.

Resistance to change on the part of employees can be overcome by inviting the suggestions of the people affected. No one will resist a change he helped to originate.

—Jack Dunman, Mengel Co. (Wood Products)

Able Seamen

An able-bodied seaman has to be just that to sign on for a voyage with the Mississippi Shipping Company. All our sea-going personnel are now required to pass

a strict and rigid medical examination before they sign on their next foreign articles.

The weakness in the plan is that as yet there is no generally accepted method for weeding out the mentally unfit. However, data is being compiled in the hope that, eventually, these can be eliminated.

It is our opinion that an ill seaman is a hazard. In eliminating men who are not fit for sea duty, we minimize the danger of their causing accidents.

—Capt. H. B. Howell, Mississippi Shipping Co. (Marine)

In Praise of Gadgets

It doesn't matter how you sell safety as long as you sell it.

Gadgets and gimmicks sometimes will sell a safety idea to workers quicker than all the pleading, cajoling and threats anyone can imagine.

A contest my company uses has done more than anything else to encourage full use of protective safety clothing and equipment.

Each week, an employee's name is drawn out of a hat. A cash prize is given to the lucky person only if he is wearing the prescribed safety garb when he's observed on the job. Only once has the man failed to qualify.

Howard Riefenstahl, Alpha Portland Cement Co. (Cement & Quarry)

Safety on the Campus

Providing a safety organization for a university with eight campuses, more than 30,000 full-time students, and 21,000 faculty members and employees is a complex business.

General safety, fire prevention, traffic safety and disaster preparedness are grouped under the university safety and disaster preparedness coordinator. Student health, occupational health, sanitation and radiological safety are grouped under the university physician.

Increasing use of radioisotopes and ionizing radiation equipment throughout the university has

brought special safety and health problems.

—T. E. Haley, University of California. (School and College)

How to Keep on Your Feet

More than 90 per cent of conditions that cause accidental falls in industry are well known, so all that remains is to do something about it.

Improvements in plant house-keeping, walkway surfaces, and lighting can prevent most falls.

—A. E. Minor, Ontario-Minnesota Pulp & Paper Co. (Pulp and Paper)

How's Your Attitude?

Our most potent safety tool is our attitude toward safety.

Most people are greatly concerned about their physical and material well-being. While many individuals, through a false sense of security or pride, are slow to appreciate constructive suggestions for their own personal safety, a persistent program sets up a subconscious personal response.

Your attitude toward safety will determine largely the emphasis you place upon it, the money you spend on it and it will spell out the effectiveness of your program.

—J. M. Sylvester, Bethlehem Steel Co. (Metals)

Backaches Are Headaches

Backaches are one of our biggest headaches.

While total work injuries have decreased 2 per cent in California since 1947, back and trunk injuries have increased 20 per cent. Nationally, it has been estimated that 250,000 back injuries occur each year counting only those reported.

There has been a definite increase in back injuries. This would indicate that men don't know how to lift properly or they're not in good physical condition or they're careless about details of their jobs.

More people are injured from lifting fairly light objects than from heavy objects because more



care is usually taken with something heavy.

Correct posture for lifting is a "squat, not a stoop," with the lift

—To page 97

CASES for COMMENT

Compiled by ROBERT D. GIDEL

Senior Engineer, Industrial Department, National Safety Council.

Improvements?

A crane operator attempted to close his crane cab door by inserting his index finger through a pull ring installed for that purpose. The improperly placed pull ring was sufficiently close to the edge of the door to allow his finger to be crushed between the door and a steel door stop. Resulting injuries necessitated amputation of one-third of the middle phalanx left index finger.

Investigation revealed that the injured, while in the employment of another company in 1914, injured the same finger. The original injury left the finger permanently stiff.

The company wished to know how to correctly arrive at the penalty charge for the partial loss of an already incapacitated body member as was the case in this instance.

Decision. This injury should be included in the company's industrial injury rates and the time charge for this injury should be 150 days. The question in this case seemed to concern the earlier disability of the finger. But, since the code specifically states that charges shall be made without regard to any pre-existing disability, evaluation must be made in terms of loss in the present accident, which was the loss of a finger between the distal and middle joints.

Comments. Here is a case of an aid having been installed for the benefit of the employee, but having been installed improperly. Whose responsibility is it to follow up on improvements of this type to see that they have been done properly?

Many companies eagerly seek suggestions on how to improve methods and equipment. But, it is extremely important to con-

sider all factors involved in order to make absolutely sure that new hazards or conditions are not created which will overcome the benefits which might be gained by the change.

Personal Duties

A Production Department employee who regularly works as a well service unit operator reported for duty as usual, driving his personal car. When he arrived at work headquarters he was informed of a change in job assignment for the day to well service superintendent which involved use of a company car which was at another location.

After the employee had begun his duties as well service superintendent and when he went to get the company car, instead of being driven there by a fellow supervisor in an available company car he decided to go by way of his residence, driving his personal car home and leaving it so it could be taken to a garage for minor repairs. A fellow supervisor agreed to pick him up in another company car at his home and deliver him to the point where the company car was located.

While the employee was driving from work headquarters to his home in his personal car he was involved in an automobile accident resulting in a disabling injury.

For purpose of clarification, the three locations are similar geographically to the three points that form a triangle. Home "A," work headquarters "B," and location of company car "C." The side of the triangle from work headquarters to home is 15 miles; from home to location of company vehicle is 12 miles; from work headquarters to company vehicle is 5 miles.

The company questioned whether this injury should be included in the company records on the basis that the accident did in fact "arise out of the employment" while he was en route to pick up the company car which was essential to his job assignment, even though for personal reasons he elected to reach his destination by a circuitous route.

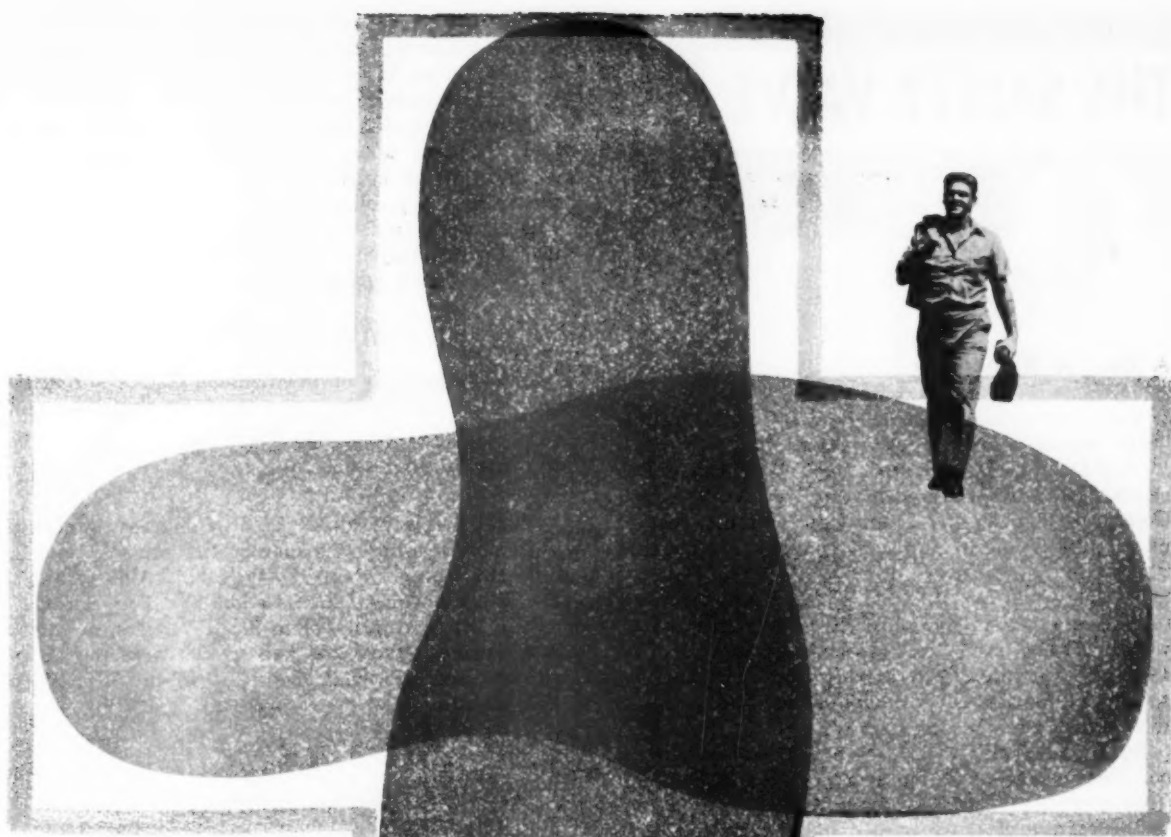
Decision. The injury should not be included in the company's industrial injury rates. The judges felt that this employee took himself out of employment when he

—To page 116

IS THAT INJURY chargeable to your occupational injury record?

In some cases there is reasonable doubt as to whether the injury arises out of or in the course of employment. This can usually be decided by consulting *ASA Standard Code Z16.1-1945*. If there is any doubt as to interpretation of the Code, the Committee of Judges of the American Standards Association's Sectional Committee is available to review the facts.

A few cases are discussed here. It is hoped they will aid readers not only in determining the chargeability of accidents but also in planning preventive measures.



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THE SAFETY VALVE



A Day to Remember

YOU WILL PROBABLY be seeing a lot of the initials "S-D" during the next few weeks.

"S-D Day" is "Safe Driving Day," Wednesday, December 15. It is sponsored by the President's Action Committee for Traffic Safety, and all the rest of us who are trying to cut down accidents are backing it.

S-D Day will be preceded by an intensive drive, using every available medium. If you listen to radio, watch TV or read the newspapers, you will be reminded to watch your driving that day. And the sponsors hope that the festivity of the holiday season won't wash away all its lessons.

Every community will face a test. Can it remain completely free of traffic accidents for 24 hours?

Of course, it could be done if every car stayed in the garage. And can you imagine the chaos that would result? Our daily living is geared to motor transportation so we have to make the best of it.

S-D Day isn't beamed at drivers alone. We'll have to watch our walking, too.

And what a contribution an accident-free day would make to a Merry Christmas throughout the country!

Wonderful Invention

GEORGE EASTMAN, whose centenary is celebrated this year, didn't invent photography. Its principles were already well-known and picture-taking equipment was obtainable for those who had the time, money and patience to use it. But he made it available to millions.

Eastman's inventions made enormous contributions to the graphic arts through improved media for illustration. And what about the pleasurable hobby they provided for us shutter-happy amateurs?

How many persons today would have the patience to sit still long enough for a portrait in Monsieur Daguerre's studio? Or go around the country shooting pictures if they had to lug the wet-plate equipment with which Brady recorded those remarkable Civil War scenes?

Thanks to Eastman—not forgetting his successors—it is possible to take still and motion pictures in black and white or color on compact rolls of fast-emulsion film for pleasure, education, or promotion.

Nobody appreciates photography more than an editor. With the wealth of photographic material now available, it's a lot easier to display articles in a magazine than it was even 25 years ago.

Safety men, too, are finding the camera a useful tool. Pictures taken on the job can teach right methods while enlivening the bulletin board and the employee publication.

But for me, and I suspect for a lot of others, no use of photography outranks those precious shots of children and grandchildren.

* * *

Latest variation of the Council's slogan: "Drive carefully—the life you save may be a customer's."

In This Issue . . .

BECAUSE the opening of the Congress coincided with our deadline this month, the report takes in only the Annual Meeting (Page 22). Also included are President Dearborn's address, "The Six C's" (Page 18), and a complete list of officers, directors and trustees (Page 26) and quotes from papers of subject and sectional meetings (Page 38). More next month.

* * *

There is a persistent delusion that to get safety you have to sacrifice something else—speed, service, profits. Modern management knows better—that safety actually helps in cutting costs and giving better service. From his experience as a public utility executive, Edward C. Duffy presents the views of a safety-minded front office on the subject. Mr. Duffy, incidentally, returned from vacation this year just in time to get involved in the mess caused by Hurricanes Carol and Edna which fouled up utility service along the Atlantic seaboard. As in many another emergency, safety training and safety equipment proved their worth. (Page 20)

* * *

Disastrous fires often strike suddenly and mysteriously, but fire prevention engineers soon get at the causes. Here are some facts about recent fires in metal-working plants based on a survey by the National Board of Fire Underwriters. (Page 28)

* * *

Judging from the amount of discussion at the Congress and elsewhere, noise is just about the hottest problem facing industry. This article deals with one phase of it—the use of instruments in measuring sound. More on the subject in future issues. (Page 32)

Carman Fish



MEET "HOT-HANDS" HARRIGAN



He didn't have neoprene gloves—had to learn the hard way. Unnecessarily, too, when gloves made with neoprene protect hands from oil, grease, acids, chemicals and abrasion. Workers appreciate the complete protection neoprene gloves give them . . . management welcomes the man-hours saved. What's more, gloves of neoprene stay comfortably flexible and resilient throughout a long service life—while they're outlasting all those pairs of ordinary work gloves.

When you specify rubber goods made with **NEOPRENE** . . . you get all these safety features:

- **RESISTANCE TO OIL, GREASE, AND MOST CHEMICALS**—neoprene protects against deteriorating agents
- **FLAME RETARDANCE**—neoprene won't support combustion
- **ABRASION RESISTANCE**—neoprene is strong and tough!
- **HEAT RESISTANCE**—neoprene won't soften
- **RESISTANCE TO SUNLIGHT, WEATHERING, AND OXIDATION**—neoprene won't crack or soften

While Du Pont does not make finished products of neoprene, your rubber-goods manufacturer or distributor will gladly tell you about the neoprene products he supplies.

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THE ACCIDENT BAROMETER



Prepared by the Statistical Division,
National Safety Council

ACCIDENTAL DEATHS in July numbered approximately 8,100, a decrease of 6 per cent from July a year ago. All classes showed some reduction from last year with the greatest improvement recorded in public non-motor-vehicle fatalities.

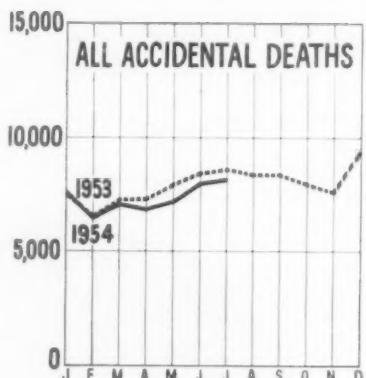
During the first seven months of 1954, accidental deaths totaled 50,900, a decrease of 5 per cent from last year. There was a sizable reduction in deaths from motor-vehicle accidents, moderate decreases in home and work and a small reduction in public non-motor-vehicle deaths.

Motor-Vehicle Deaths

The July total of motor-vehicle deaths was 3,150, a drop of 3 per cent from last year, but no change from July, 1952.

Deaths for the seven months numbered 19,450, or 5 per cent below the 1953 total of 20,500. The seven-month death rate per 100,000,000 vehicle miles was 6.1, a reduction of 8 per cent from the 1953 comparable rate of 6.6.

Of the 47 states reporting for seven months, 30 had fewer deaths than in 1953, 3 had the same number and 14 had more deaths. Reporting cities with populations of more than 10,000 showed a cut of 8 per cent for July and 12 per cent for the seven-month period.



	1954	1953	Change
July	8,100	8,600	-6%
Seven Months	50,900	53,400	-5%

Regional changes from 1953 in the seven-month death totals were:

North Atlantic	-9%
South Atlantic	-10%
North Central	-4%
South Central	+1%
Mountain	+1%
Pacific	-13%

Work Accidents

Deaths from work accidents numbered 1,200 or 100 fewer than in July last year. The total for seven months was 8,100, a reduction of 7 per cent from 1953.

The July frequency rate for plants in community council contests was 6.51, a decrease of 21 per cent from last year. The July rate for plants in 15 sectional accident prevention contests conducted by the National Safety Council was 6.42, a reduction of 6 per cent. The seven-month rate in community council contests was 6.68, a reduction of 10 per cent; in sectional contests it was 5.97, a decrease of 9 per cent.

Public Deaths

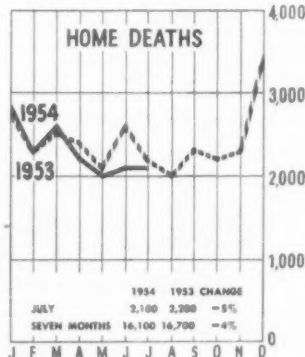
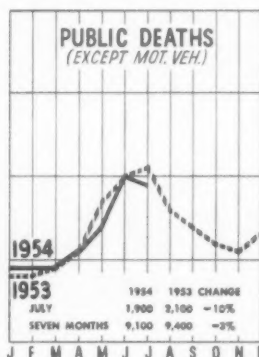
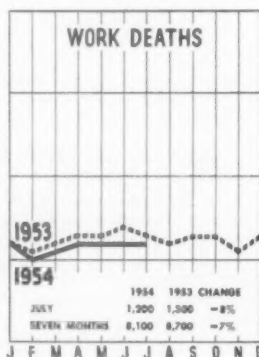
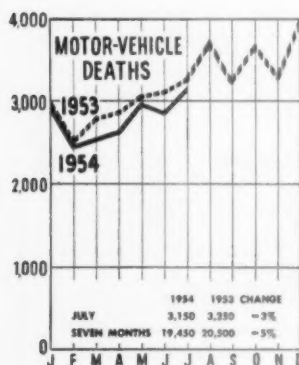
Public non-motor-vehicle accidents in July resulted in approximately 1,900 deaths or 200 fewer than last year.

The January-July death total was 9,100, a reduction of 3 per cent from 9,400 in 1953. There was a moderate decrease in transportation accident deaths and small reductions in fatal drownings and firearms accidents. Burns and falls showed moderate increases over last year. Aside from a moderate increase in deaths of persons 65 years and over, other age groups showed decreases with the largest change recorded for persons 15 to 24 years of age.

Home Deaths

The home accident death toll for July was 2,100, a decrease of 5 per cent from last year.

The death toll for seven months was 16,100, or 4 per cent less than in 1953. There were decreases in deaths resulting from poisonings, mechanical suffocation and falls, an increase in deaths from burns and no change in fatal firearms accidents. All age groups showed decreases from last year with the greatest improvement recorded for persons 15 to 24 years old and the least for children under 5 years of age.



Lightweight



the only light weight sole
with ALL the important features

- *Comfort*
- *Appearance*
- *Slip Resistance*
- *Long Wear*



Plus

resistance to:
**OIL, HEAT,
CAUSTICS,
ACIDS**

● Yes, light weight Neo-Crepe has the flexibility, the smooth appearance and the cushioned comfort of a light weight crepe sport sole. Yet it also has all the important plus features that make it an ideal sole for work and industrial wear. Neo-Crepe is made of du Pont Neoprene — resists oil — heat — acids — and caustics, are slip-resistant — waterproof and non-marking. If it's light weight crepe you are looking for, be sure you get Neo-Crepe . . . It's specially made for work and industrial footwear. Available in Brown, Black and Natural.

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Tillsonburg, Ontario

Safety Films

Further information on publications or films listed here may be obtained from Nancy Lou Blitzen, Film Consultant, National Safety Council

THE NATIONAL SAFETY COUNCIL has become a movie star. A new 16mm color motion picture about the Council has just been released by Encyclopaedia Britannica Films, Inc.

This 22 minute film entitled *Anyone At All* gives the history of the Council up to the granting of a Federal Charter by President Eisenhower, and shows how other organizations can and do obtain the Council's help in forming their own safety programs. But it is also a truly inspirational film about safety for any group, whether or not they desire to form an organization.

Briefly, the story dramatically tells about a surprise party for a



Scene from the motion picture, "Anyone at All," produced for National Safety Council by Encyclopaedia Britannica Films.

popular young man that starts in tragedy when the man is killed in an automobile accident. A friend decides that something must be done to stop such accidents and he and his friends go to their school principal who tells them about the National Safety Council and its work for more than 40 years in starting just such safety programs.

The Council sends the school materials and the ball really starts

rolling. Everyone in town enters the spirit and soon the safety movement spreads; to industry, the farm, the home, and finally to the start of a local safety council incorporating all these movements.

Each safety program gets its start as the result of a tragic accident happening to someone who is liked by all and on the way to a successful life. Each one felt that accidents couldn't happen to him, but one did, and in the words of one victim, "It could be you, it could be anyone. Anyone at all!"

Prints are available from Encyclopaedia Britannica Films, Inc., 1150 Wilmette Avenue, Wilmette, Ill., for purchase and rental.

It took an old Indian to sum up the world situation accurately. He said: "Trouble is, nations smoke peacepipe, but nobody inhales."

...Flexible, Neoprene Coated HOOD HEAVY-DUTY GLOVES

Model 4705
Also available as 7705, 12" gauntlet.

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Check these HOOD features:
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The K-LENS-M Lens Cleaning and Anti-Fogging Station encourages your employees to practice eye-safety. This compact, efficient, and economical goggle cleaning unit contains the K-LENS-M Lens Cleaning Liquid; K-LENS-M Lint-free lens tissues with sanitary disposal space for used tissues; and K-LENS-M Anti-Fogging Attachment.

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WILKINS

GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

By TOM A. BURKE

Western Region, Western Region, NSC

Council Managers' Meeting

THE ANNUAL MEETING of Safety Council Managers was held at the Conrad Hilton Hotel in Chicago on October 15-16 with more than 100 managers, safety council officers, and others in attendance.

Ned H. Dearborn was keynote speaker at the opening session, reporting on the current plans and progress of the National Safety Council. An official delegation from the White House Conference on Highway Safety and the Permanent Action Committee of the Conference discussed with the managers the implications of that program for local safety organizations. Members of the delegation were: Light B. Yost, Admiral H. B. Miller, and William Bethea.

Norman Damon, vice-president of the Automotive Safety Foundation, and representatives of the Association of Casualty and Surety Companies, reported on what their respective organizations were doing as follow-up on the White House Conference.

On Saturday morning, Herman J. Spoerer, manager of Industrial Relations, Youngstown Sheet and Tube Company, and National Safety Council Vice-President for Industry; and William Gill, Jr., former city manager of Oklahoma City, and current president of the Oklahoma City Safety Council, participated in a discussion on what industrial leaders and city officials want from local safety organizations.

The Sixth Annual Meeting of the Conference of Local Safety Organizations was held at the La-Salle Hotel on Monday, October 18. Highlight of this meeting was the recommendation of the Conference that a permanent committee

of the NSC Board of Directors be appointed to consider matters of special importance to chapters. It is expected that this board committee will consider the difficult problem of fund-raising for local organizations.

The annual banquet of the Conference of Local Safety Organizations featured The Honorable Ivy Baker Priest, Treasurer of the United States, as principal speaker. Mrs. Priest, long a worker in safety in her native state of Utah, was given a wonderful reception at the dinner and delighted the capacity audience. George Stewart, newly appointed general manager of the National Safety Council, was introduced by President Ned H. Dearborn.

Why, That's Me!



Here's a safety award that's different. Robert W. Emerick (left), director of public relations for Pontiac Motor Division of General Motors, receives the Indianapolis Safety Council "Osa" for his 1953 chairmanship of the NSC chapter, from H. J. Lacy II, president, Indianapolis Chamber of Commerce. Statuette is replica of Emerick.

Special Achievement Awards for outstanding work in community safety were presented at the awards luncheon to the following chapters:

Greater Cincinnati Safety Council—1st Place & Honorable Mention Awards
Dayton Chamber of Commerce Safety Council—1st Place

Greater Los Angeles Chapter—1st Place & Honorable Mention Awards
Eastbay Chapter—1st Place
Omaha Safety Council—1st Place
Safety Division, Syracuse Chamber of Commerce—1st Place

Twin Cities Area Safety Council—1st Place & Honorable Mention Awards
Safety Council, Chamber of Commerce of Ft. Wayne—Honorable Mention

Indianapolis Safety Council—Honorable Mention

Philadelphia Safety Council—Honorable Mention

San Francisco Chapter—Honorable Mention

San Joaquin County Safety Council—Honorable Mention

Berkeley Emergency Series

A 10-session course, "Emergency Medical and Health Services," co-sponsored by the University of California Extension and the School of Public Health at Berkeley, California, started on September 21, with 60 students. The second session on September 28 was devoted to the accident problem in the U. S., the work and aims of the National Safety Council, and accomplishments to date in all fields of accident prevention effort. Tom A. Burke of the Western Region Office was the speaker on this subject.

The course is offered to doctors, dentists, nurses, pharmacists, public health workers and medical technicians, etc. Dr. William W. Stiles, associate professor of

—To page 127

protect against
DERMATITIS



Put Hexachlorophene protection in all your wash-rooms with Armour's antiseptic hand soaps!

The cause of many skin infections is left untouched on your hands *after* you have washed them with ordinary soap! Ordinary soap will *not* destroy the skin bacteria that cause infection and dermatitis. But because Armour's antiseptic hand soaps contain Hexachlorophene, they *will* destroy harmful skin bacteria.

Hexachlorophene is the first germicidal agent ever found that stays antiseptic in soap. Daily washing with these Armour soaps containing Hexachlorophene will destroy *up to 95%* of harmful skin bacteria! That's real protection for the people in your company and may add benefits in insurance and labor relations, too.

So order Liquid Dial or powdered Formula #99 for your washrooms today! (You can order the powder form with either Borax or a vegetable scrubber added.) Request the samples and booklet offered at right and see for yourself how Hexachlorophene soap protects against dermatitis!

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N 11

Wire from WASHINGTON

By HARRY N. ROSENFELD

Washington Counsel, National Safety Council



A ROUND-UP of safety legislation during the Congressional sessions just completed must bear in mind that the 83rd Congress had before it more than 16,000 bills. During the second Session, which took place in 1954, the Congress enacted 1,268 bills, of which 493 were public laws. The President vetoed 42 bills passed by the Congress.

Highways

Public Law 350 (which was H.R. 8127) is the largest Federal-state highway program in history. For the fiscal years 1956 and 1957, the new law authorizes \$966 million a year (which is \$400 million more than under the previous program) for highway improvements. Although Public Law 321 continued the excise tax on gasoline unchanged until April 1, 1955, the Congress refused to link the federal-state highway improvement program to revenues received from the federal excise tax on gasoline.

Public Law 522 (H.R. 7468) authorized the regulation of motor carrier transportation between points in a foreign country, to the extent that such transportation involved travel in the United States. This law affects insurance for protection of the public, and the safety of operation and equipment, among other items.

Public Law 365 (S. 2305) enacted the Motor Vehicle Safety Responsibility Act of the District of Columbia, the basic purpose of which was to eliminate the financially irresponsible driver or owner. This law is in general conformity with the Uniform Vehicle Code.

Industrial Safety

Public Law 738 (H.R. 270) authorizes an appropriation of \$500,000 by the Secretary of the

Interior, for the control and extinguishment of outcrop and underground fires in coal formations; it authorizes both research into the causes and the execution of remedial projects. Costs of the projects are to be borne jointly by the Federal government and the mine property owner.

Marine Safety

Two international agreements affecting marine safety were effectuated. Public Law 584 (S. 2453) implements the International Convention for Safety of Life at Sea, through radio installations and operators on certain ships between 500 and 1,600 gross tons. Public Law 590 (S. 3464) effectuates the Agreement for the Promotion of Safety on the Great Lakes, through the use of radio.

Public Law 753 (H.R. 8647) preserves the status quo, in connection with the inspection of hulls and boilers of vessels of 15 gross tons or under, until further study can be given to several bills proposing safety changes.

Public Law 500 (H.R. 8538) authorizes denial and revocation of seaman's documents to persons convicted, under certain circumstances, of narcotic law violations, and to uncured users of narcotic drugs.

Fire Safety

Two interstate fire-fighting compacts were approved by the Congress. Public Law 536 (S. 2786) gives Congressional consent, under the Constitution, to the Southeastern Interstate Forest Fire Protection Compact, for 10 states. And Public Law 642 (H.R. 6393) does the same for five South-central states.

Home Safety

Public Law 385 (H.R. 116) prohibited the transportation of fireworks into any state forbidding their use or sale. The law pro-

vides certain exemptions, such as the interstate shipment of fireworks for Federal agency use, and it exempts common, contract or water carriers from liability. In connection with the shipment of fireworks used for agricultural purposes (in particular the Congress had in mind use for bird control in certain types of crops), the law permits continued shipment for a period ending 60 days after the start of the next state legislative session. This last exception will enable state legislatures to determine whether their own laws will, in conjunction with the Federal statute, forbid firework shipments in such instances.

Public Law 518 (H.R. 7125) authorizes a permissible tolerance level, to be established by the Secretary of Health, Education and Welfare, for pesticide chemicals as additives to raw agricultural commodities.

Senate Resolution 272, which is not a public law, but a Senate resolution, was passed by the Senate on the subject of safety in connection with abandoned refrigerators. Instead of requiring the installation of inside safety latches on all refrigerators shipped in interstate commerce, as had been proposed by bills before the Senate, the Senate commended state and local authorities for enacting legislation to deal with the matter, and urged further such local legislation. The Senate Committee indicated its intention to watch the development of suitable safety latches for installation in refrigerators.

Government Operations

The Senate Committee on Appropriations directed the Department of Commerce to institute a safety program in order to reduce its accident rate.

Ansul

is the only dry chemical
fire extinguisher backed
by a five year warranty!

Here is proof of Ansul's superiority . . . a *five year equipment warranty*, the only one of its kind in the fire control industry.

For the buyer of fire equipment this important warranty means many *extra* years of trouble-free protection plus freedom from costly and frequent maintenance checks and repairs.

The special design and construction features that make this warranty possible provide not only dependable protection but also *fast*,

effective fire control. Ansul's *weather-tight* construction keeps out moisture and resists corrosion. *Patented nozzles* deliver the right kind of stream for your fire protection problem. The *sealed pressure cartridge* puts Ansul's "Plus Fifty" dry chemical to work immediately—no delay or lag. And finally *rugged construction* makes it possible for Ansul equipment to give peak performance under the toughest operating conditions.

HERE IS THE BIG TRAINING AND SERVICE PLUS OFFERED ONLY BY ANSUL!
Available without cost to all Ansul users.



Training for your personnel at your plant by Ansul specialists.



Customer training school at Marinette for your key safety personnel.



Visual aids on fire control for your safety meetings and other training.



In-plant survey to scientifically determine your fire protection needs.

Call the Ansul Man!



Get in touch with your local Ansul man through the "yellow pages" or write **ANSUL CHEMICAL COMPANY**, Fire Equipment Div., Dept. F-33, Marinette, Wisconsin.



SMALL BUSINESSES and ASSOCIATIONS

By A. M. BALTZER and ROBERT D. CURRIE

Small Business Program Staff
National Safety Council

"Just the Facts, Ma'am"

At the Small Business Session of the National Safety Congress—Harry Brainard, Manager of the Western Pennsylvania Safety Council, announced that the results of the Survey Program conducted by his small plant committee brought to light the following facts:

... One in every four small plant employees was injured last year to the extent that he needed a doctor's attention.

... One in every 20 was so badly injured that he lost time from work.

... Every small plant employee has at least one visit to the first-aid room.

... Three in every five small concerns had no one on the premises at any time who could render medical aid.

... Two in every three small firms admit that they have no safety policy or program in effect.

A four-page brochure highlights the facts of the survey. Copies are available to you upon request. Drop a note to the Small Business Program, National Safety Council, for your copy.

New Safety Film

The American Association of Oil Well Drilling Contractors has introduced a new film *Rig Housekeeping* for use in the oil industry.

The film compares a clean home and a clean rig. The camera pinpoints necessary rig practices illustrating good housekeeping. The film establishes a relationship between rig housekeeping and rig accidents. It does a real job in getting across general rules such as keeping tools in the proper place and in good order, painting rig equipment with colors complying with the Safety Color

Code, keeping areas free of trash and obstructions which create hazards, washing derrick floors, etc. The film is released for trade distribution through the Safety Committee of the AAODC.

This is tangible evidence of what an association with a good safety program can offer in the way of service for their members.

Like "Hot Cakes"

The Council's new 8-page booklet to stimulate greater safety in small business, *Plus Costs*, has been given even more enthusiastic reception than its predecessor, *Safety Pays the Small Business*. As the result of publicity given by national magazines and bulletins, requests have come in from all parts of the country, and such far-off places as Denmark, India, Manila and Paris.

The nature of the requests is interesting, and sometimes puzzling. Some have come from individuals, large companies, as-

sociations, magazines, fraternal organizations, and even broadcasting stations. Regardless of the motive behind the request, we are confident that the story presented in the *Plus Costs* booklet will achieve its purpose of making the reader just a little more safety minded.

AGA Launches Course

The American Gas Association announced the availability of its new accident prevention course for gas industry personnel. The course, entitled "Accident Prevention Through Informed Supervision," is designed to give foremen, supervisors and superintendents a thorough grounding in accident prevention techniques. The two-day seminar leans heavily on visual aids to emphasize unsafe conditions, unsafe methods, and accident costs. The course is described in detail in an article in this issue.

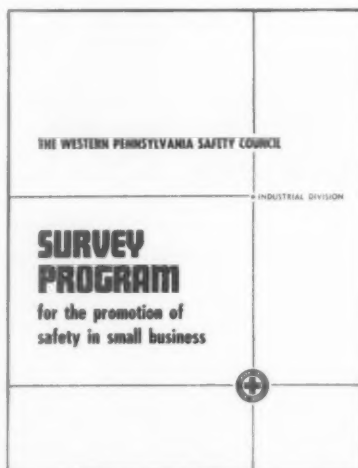
It's for Free

Reprints of the article, *A Program for Both Large and Small Plants*, offered by the Safety Director of the Manufacturers' Association of Berks County, Reading, Pa., are available to those requesting them from us.

This article describes how this association aroused the interest of its members to the constant threat of accidents in their plants. It goes on to describe the necessary fundamentals of an association safety program. Associations which are considering inaugurating safety services for their members will find this article of considerable aid.

Revise Classification of Insulating Materials

INTERNATIONAL AGREEMENT has been reached on revision of the classification of insulating materials which was published in the 1935 Edition, Rule 34 for rotating machines and transformers, issued by the International Electrotechnical Commission. This agreement was reached by national committees of 13 countries that are members of a Technical Committee of the International Electrotechnical Commission. The



This brochure has "the facts."

committee met in Philadelphia during the 50th Anniversary Celebration of IEC, September 1-16.

It is proposed to publish the new classification as a separate document applicable to all types of machinery and apparatus. In addition to the previous standards covering classes A, B, and C, new classes named E, F, and H will be included. Maximum operating temperatures will be assigned to the various classes, which will be defined in broad terms.

An appendix listing materials in their various classes will be divided into two parts: (a) a principal list which will apply to well established materials, and (b) a supplementary list which will apply to lesser known materials.

The new document will be submitted to the various national committees that are members of IEC Technical Committee for approval.

Countries represented at the committee meeting in Philadelphia were Belgium, Canada, Denmark, France, Germany, India, Israel, Italy, Netherlands, Sweden, Switzerland, United Kingdom, and USA.

Wisconsin Announces Safety Conferences

A SCHEDULE of safety schools and conferences to be held in the state through June 1955 has been announced by the Wisconsin Council of Safety. Information about the following meetings can be obtained from the Council at 1 West Wilson Street, Madison 2:

November 3, 10 and 17, Milwaukee—Fire Prevention and Plant Protection School.

January 20-21, Milwaukee—All-state Midwinter Safety Conference and Exposition.

March 22, Madison—Wisconsin Canners Safety Institute.

March 22, April 19 and May 17, Milwaukee—Foremen's Safety School.

April 28, Plattville—Southwest Regional Safety Conference.

May 13, Marinette—Fox River Valley and Lakeshore Regional Safety Conference.

May 17, Madison—Rock River Valley Regional Safety Conference.

May 19, Racine—Southeast Lake Shore Regional Safety Conference.

June 7, Wisconsin Rapids—Wisconsin River Valley Regional Safety Conference.

June 9, New Richmond—Northwest Regional Safety Conference.

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A double layer of leather, triple stitched, encases and protects the vulnerable heel area. One piece wrap around construction is used.

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The first truly oil resistant material that also withstands dry abrasion. Dacron stitched throughout. A brown sole that wears better than black. A premium material developed by Seiberling—a name famous in industry.



The Iron Age "Skee-Bo" is really two safety shoes in one. Actually, there is a double overlay of leather on all critical parts—double layers for double wear. It's the strongest constructed safety shoe ever made, yet comfort is assured through using premium grade soft, plump oil tanned leathers.

Here is a safety shoe built to stand up under the most severe wearing conditions, including oil, water and abrasion. If you have job operations that are death to ordinary safety shoes, the Iron Age "Skee-Bo" is for you. Ask your Iron Age representative for a demonstration, or write for new bulletin and price list.

LEATHER RAWHIDE

LACING Genuine rawhide laces provide extra value, longer wear. Note that there is less lacing than in conventional lace-to-toe styles, less chance for materials to lodge under lacing.

DOUBLE LEATHER VAMP

The steel toe is encased and securely locked between the double leathers of an attractive, plain toe vamp. Thus no bulky lining is required.

**No. 680
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Books, Pamphlets and Periodicals of Interest
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Compiled by Ruth Parks, Librarian, NSC

BOOKS AND PAMPHLETS

Men and Machines

The Ergonomics Research Society Symposium on Human Factors in Equipment Design, edited by W. F. Floyd and A. T. Welford. Published by H. K. Lewis and Co. Ltd., London, 1954. VII + 132 pages. \$4.00. Distributed in the United States by John de Graff, Inc., 64 W. 23rd St., New York 10.

SINCE THE BEGINNING of the Industrial Revolution, machinery has been designed pretty much for the convenience of the machine designer and the ease of the manufacturing process. The operator has been able to, and has been expected to, adapt himself to the controls where they have happened to appear. As machines have become more complex and have taken over more and more of the physical effort of industrial processes they have continually thrown a greater strain upon the sensory equipment of the operator in sorting out and reacting to the various instruments and controls.

An outstanding example of this at the present time is the multi-engined aircraft in which the necessary controls have become so complex that it has become absolutely essential to consider the ease of observation and of operation if it is to remain within the capabilities of even specially chosen humans to operate the machine. The study of ergonomics (getting the most useful return for the least applied effort) has arisen from this.

This symposium summarizes quite well what has been learned in the relation of the man to his job up to the present time, or at least until April 1951—the date of the symposium. It consists of an introduction and 14 chapters by 15 specialists in the disciplines ranging from gross anatomy and anthropometry through physiolo-

gy to mechanical engineering. These are required to relate the man comfortably and efficiently to his work place.

While the style varies as it must in a symposium it reads well and easily in the main and one could scarcely ask for a better introduction to the subject. The continuing usefulness of the volume might be improved by the addition of an index but, since it is short, this is not as serious an omission as it would be in a more bulky volume.

F. A. Van Atta

Cosmetics

Handbook of Cosmetic Materials. Their Properties, Uses, and Toxic and Dermatologic Actions, with a bibliography of over 2500 titles, by Leon A. Greenberg, Ph.D. and David Lester, Ph.D. with a chapter on the skin by Howard W. Haggard, M.D. Published by Interscience Publishers, Inc., 250 Fifth Ave., New York 1. 1954. XII + 455 pages. \$12.50.

DR. HAGGARD's chapter on the skin is an excellent summary of its structure and functions. The remainder of the book is concerned primarily with the actions of the various materials listed on the skin in the form in which they are commonly used in cosmetic applications. The descriptions of both the dermatitis producing actions and the toxicity are very brief summaries. References to toxicity in many instances amount only to the statement that the material is very toxic or moderately toxic as the case may be. The references to dermatologic action are generally much more specific.

F. A. Van Atta

Accident Statistics

Work Injuries in the United States During 1952. U. S. Bureau of Labor Statistics. 1954, 41 p. Bulletin No. 1164. 30c. For sale by the Superin-

tendent of Documents, Washington 25, D. C.

Aeronautics

Standards of the NFBU for the Construction and Protection of Aircraft Hangars. National Board of Fire Underwriters, 85 John St., New York 38. 1954, 40 p. NBFU No. 409. Free.

Chemical Industry

Manual on Safety for Chemical Laboratories, Pilot Plants, Chemical Storerooms, Mechanical Shops. U. S. Department of Agriculture, 1954, 36 p. Agriculture Handbook No. 37. For sale by the Superintendent of Documents, Washington 25, D. C. 20c.

Chemicals

Butadiens. Manufacturing Chemists' Association, 1625 Eye St., N. W., Washington 6, D. C. 1954 revision, 16 p. Chemical Safety Data Sheet S. D. 55. 25c.

Fire Protection

The Classification of Fire Hazards and Extinction Methods. By James D. Birchall. Ernest Benn, Ltd., London. 1954. 97 p. \$1.50. Available in the U. S. from John de Graff, Inc., 64 West 23rd St., New York 10.

Standards of the NBFU for Combined Foam and Water Spray Systems. National Board of Fire Underwriters, 85 John St., New York 38. 1954. 8 p. NBFU-No. 16. Free.

Standards of the NBFU for Foam Extinguishing Systems. National Board of Fire Underwriters, 85 John St., New York 38. 1954 revision. 59 p. NBFU No. 11. Free.

Standards of the NBFU for Rubber Tire Protection and Foam or Sponge Rubber Protection. National Board of Fire Underwriters, 85 John St., New York 38. 1954. 4 p. NBFU No. 45. Free.

Flammable Liquid

Flammable Liquid Trade Name Index. National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass. 1954. 80 p. NFPA No. 325A. \$1.25.

Gases

Methods of Marking Portable Compressed Gas Containers to Identify the Material Contained. American Standards Association, 70 East 45th St., New York 17. 1954 revision. 2 p. ASA-248.1-1954. 15c.

Health

Principles of New Plant Design for Health Protection. By Theodore Hatch. Industrial Hygiene Foundation, Mellon Institute, 4400 Fifth

Ave., Pittsburgh 13, Pa. 1954. 17 p. Reprint from Transaction of 18th Annual Meeting of IHF. Free.

Review of Literature on Health Hazards of Fluorine and Its Compounds in the Mining and Allied Industries. U. S. Bureau of Mines. 1954. 55 p. Information Circular 7687. Free. Available from the Bureau's Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

Liquefied Petroleum Gas

Standards of the NBFU for the Storage of Liquefied Petroleum Gases at Utility Gas Plants. National Board of Fire Underwriters, 85 John St., New York 38. 1954 revision. 27 p. NBFU No. 59. Free.

Marine Industry

Standards of the NBFU for the Construction and Protection of Piers and Wharves. National Board of Fire Underwriters, 85 John St., New York 38. 1954 revision. 19 p. NBFU No. 87. Free.

Radiation

Radioactive-Waste Disposal in the Ocean. National Bureau of Standards, 1954. 31 p. Handbook 58. 20c. For sale by the Superintendent of Documents, Washington 25, D. C.

Workmen's Compensation

Workmen's Compensation Problems Proceedings — 39th Annual Convention of the International Association of Industrial Accident Boards and Commissions. 1953. U. S. Department of Labor. 1954. 189 p. Bulletin 172. 50c. For sale by the Superintendent of Documents, Washington 25, D. C.

MAGAZINE ARTICLES

Air Pollution

Measurement of Air Pollution. By J. Cholak. A.M.A. Archives of Industrial Hygiene and Occupational Medicine. Sept. 1954. p. 203.

Symposium on Air Pollution. Public Health Reports. August, 1954. p. 721.

Chemicals

Acute and Subacute Toxicity of Cyclothrin. By C. P. Carpenter and others. AMA Archives of Industrial Hygiene and Occupational Medicine. August 1954. p. 162.

Problems in the Study of Decaborane and Possible Therapy of Its Poisoning. By Versa V. Cole and others. AMA Archives of Industrial Hygiene and Occupational Medicine. August 1954. p. 158.

Trichloroethylene and Dichloroethylene Poisoning. By Robert S. McBirney. AMA Archives of Indus-

trial Hygiene and Occupational Medicine. August, 1954. p. 130.

Trichloroethylene Toxicity. By Morris Kleinfeld and Irving R. Tabershaw. AMA Archives of Industrial Hygiene and Occupational Medicine. August 1954. p. 134.

Construction

Health Hazards in Tunnel Construction. By George L. Wilson and Harvey J. Roberts. AMA Archives of Industrial Hygiene and Occupational Medicine. August 1954. p. 142.

Electricity

Safety Organization and Procedures with Electrical Hazards. By C. E. Merris. Plant Engineering. Sept. 1954. p. 114.

Fire Protection

Fire Protection at this Spokane Plant. The Lumberman. Sept. 1954. p. 56.

Fire Prevention: What GM learned from Experience. Management Review. Oct. 1954. p. 692.

Insecticides Warehouse Fire Fells Pomona, Calif. Fireman. Fire Engineering. Sept. 1954. p. 746.

Gases

New Electric Devices to Detect Leaks of Inflammable Gases. By W. C. White. Electrical Engineering. Sept. 1954. p. 806.

Health

Berylliosis. By H. S. Van Orstrand. AMA Archives of Industrial Hygiene and Occupational Medicine. Sept. 1954. p. 232.

Hazardous Exposure to Some So-Called Safe Solvents. By James P. Hughes. The Journal of the American Medical Association. Sept. 11, 1954. p. 234.

Toxicity Studies of Cobalt Carbonyls. By John F. Kincaid and others. AMA Archives of Industrial Hygiene and Occupational Medicine. Sept. 1954. p. 210.

Job Analysis

Job Safety Analysis at Munro Mine. By Gunnar Kallunki. Canadian Mining Journal. Sept. 1954. p. 67.

Workers Participation in Safety Through Job Analysis. By W. S. Walker and C. J. Potter. Personnel. Sept. 1954. p. 141.

Management

Five Keys to Safety. Management Review. Oct. 1954. p. 665.

Mines

Miners Can Wear Glasses. Canadian Mining Journal. Sept. 1954. p. 84.

Noise

A Study of Industrial Noise and Hearing Loss in a Controlled Population. By C. D. Yaffe. Public Health Reports. Sept. 1954. p. 815.

Physical Examination

Value of the X-Ray Film of the Lumbar Spine in Pre-Employment Examinations. By M. A. Connell. Canadian Mining Journal. Sept. 1954. p. 79.

Printing Industry

Dermatitis in the Printing Industry. American Pressman. August 1954. p. 21.

Traffic Safety Awards For Industrial Editors

INDUSTRIAL EDITORS throughout the U.S.A. have been invited to participate in the American Association of Industrial Editors' first annual Traffic Safety Awards Program, with cash awards totaling \$1,500.

The program is being conducted in conjunction with the mailing of a handbook prepared by the Automotive Safety Foundation to more than 8,500 editors. The handbook contains an abundance of information, references, and ideas helpful to industrial editors in the promotion of traffic safety.

Competition is open to both internal company publications and external magazines and newspapers. All industrial editors, irrespective of membership in AAIE or any other association, are invited to participate.

Six awards to editors of internal publications and six to external publication editors are offered. First award in each category is \$250. There are five \$100 awards of excellence in each category.

Articles, editorials, covers, cartoons, series of stories, etc., published between January 1, 1954 and December 31, 1954, will be considered by a panel of judges, to be chosen by AAIE in cooperation with the Foundation. Entries must be postmarked not later than midnight, January 15, 1955.

Entries, inquiries, requests for extra entry blanks should be addressed to Woodson Knight, chairman, Traffic Safety Awards Program, Room 605, 260 S. Broad Street, Philadelphia 1.

MICRO SWITCH Trip Control

A PRINCIPLE OF GOOD PRODUCTION



This chart shows wide variety of press control methods available

- 1 One operator—two hands.
- 2 One operator—two hands or one foot.
- 3 One operator—two hands or either hand or one foot.
- 4 Two operators—one to four hands, any combination, or one foot.
- 5 Three operators—one to six hands, any combination, or one foot.
- 6 More than six hands, any combination, or one foot.

Step up power-machine production by 10 to 25%

• MICRO SWITCH Trip Controls provide a three-fold advantage when installed on your manually operated power machines. All of them spell increased production—sometimes as much as 25%.

1 Instantaneous electrical response of this clutch control boosts production by increasing the number of machine operations in a given period.

2 Almost universal application—available for single stroke or repeat operation—two hand or multiple station control—and for automatic cycling or inch control for hydraulic or pneumatic presses.

3 Protection for both operators and set up men. This Trip Control cannot be "cheated." Any component failure breaks the clutch operating circuit automatically.

MICRO SWITCH Trip Controls can usually be used without additional equipment on machines already equipped with solenoid or air cylinder clutch actuators. Where other clutch-actuating equipment is required MICRO SWITCH provides a complete installation package.

It will pay you to check the many advantages of MICRO SWITCH Trip Controls for your power machines. Write to MICRO SWITCH, Freeport, Illinois, for catalogue and for the name of the distributor nearest you.

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Criss Award for 1954 Won by W. Earl Hall

W. EARL HALL, editor of the Mason City, Iowa, *Globe-Gazette* and a member of the National Safety Council's Board of Directors, has been named winner of Mutual of Omaha's \$10,000 Criss Award and gold medal for 1954. There were 300 candidates for the award which is open to residents of United States, Canada, Alaska, Hawaii and the Canal Zone.

The award was established by Mutual of Omaha to honor outstanding contributions in the fields of health and safety as a tribute to the late Dr. C. C. Criss, founder of the Association, now the world's largest company writing health and accident insurance exclusively.

Mr. Hall, who was the Council's Vice-President for Public Information from 1944 to 1949, became interested in safety back in 1926 when he was state community service director for the American Legion. In 1934 he helped organize the Mason City Safety Council and later the Iowa State Safety Council. As a member of the Iowa State Board of Education he promoted a driver-training course for the state's high schools.

In 1937 he won the \$500 award of the C. I. T. Safety Foundation for the best editorial on safety appearing in newspapers of the United States. He again won the award in 1941.

As editor of the *Globe-Gazette*, Mr. Hall has for 23 years followed the practice of including one or more safety messages in each issue of his publication. He has traveled the equivalent of twice around the world giving safety talks. Among his public appearances were more than 250 high school commencement addresses in which he never failed to emphasize safety.

In 1946 Mr. Hall was elected chairman of the National Committee for Traffic Safety, a group of 50 national organizations united in an effort to reduce traffic accidents. In 1948 he was named by

President Truman as chairman of the Committee for Organized Support of the President's Highway Safety Action Program.

Mr. Hall, who puts much emphasis on good citizenship, has found time to be active in many organizations and in all of these activities he has found additional media for the promotion of safety.

He is a past Iowa commander of the American Legion; a past chairman of the state Easter Seal annual campaign, a member of the Red Cross National board of governors, a member of the Lions' Club, and was a member of the Carnegie Fact-Finding Commission to South America in 1941.

During World War II he was a war correspondent in the European Theater. He is married and has three children.

In 1953 he was named the year's Beecroft Lecturer to the National Safety Congress. He was the seventh person designated to receive one of the ten awards provided for in a bequest to the Society of Automotive Engineers by its late president, David Beecroft.

Mr. Hall's safety credo is outlined in this simple declaration: "When nine people out of ten in

America want safety—want it enough to pay the price of safety—then we'll be on our way to having safety overnight."

Formal presentation of the award was made October 17 at the annual dinner of the Board of Directors of the National Safety Council on the eve of the 42nd National Safety Congress. V. J. Skutt, president of Mutual of Omaha, and Dr. Charles W. Mayo, of Rochester, Minn., chairman of the Criss board of judges, made the formal presentation.

Two previous Criss awards have gone to men in the medical field. The first award honored Drs. Phillip S. Hench and Edward C. Kendall of the Mayo Clinic for their work in the development and use of cortisone. Last year Dr. Howard Rusk of New York received the award for outstanding work in the field of rehabilitation.

Members of the board of judges are: Henry Ford II, president, Ford Motor Company; De Witt Wallace, editor, *Reader's Digest*; Harold Lloyd and Irene Dunne, film celebrities; Dr. Leonard Scheele, surgeon general, United States Public Health Service; Dr. Thomas Parran, University of Pittsburgh; Ned H. Dearborn, president, National Safety Council; William L. Laurence, *New York Times*; Dr. E. J. McCormick, past president, American Medical Association; James H. Doolittle, vice-president, Shell Oil Company; Don McNeil, radio and television mc; Duke P. Kahanamoku, high sheriff of Honolulu, T. H.; and Hon. Paul Martin, minister of National Health and Welfare, Ottawa, Canada.



W. Earl Hall

A liberal education is not only one which is based upon a true concept and understanding of freedom. But it is one which prepares for freedom—freedom from narrow and self-seeking selfishness. Freedom from malice and antagonism... Freedom from willingness to exploit or impose upon one's fellow man. The man who is truly free will see the world as it is. He will be a stern realist and for that very reason a sincere idealist since it is ideals, whether true or false, which rule the world.

—NICHOLAS MURRAY BUTLER

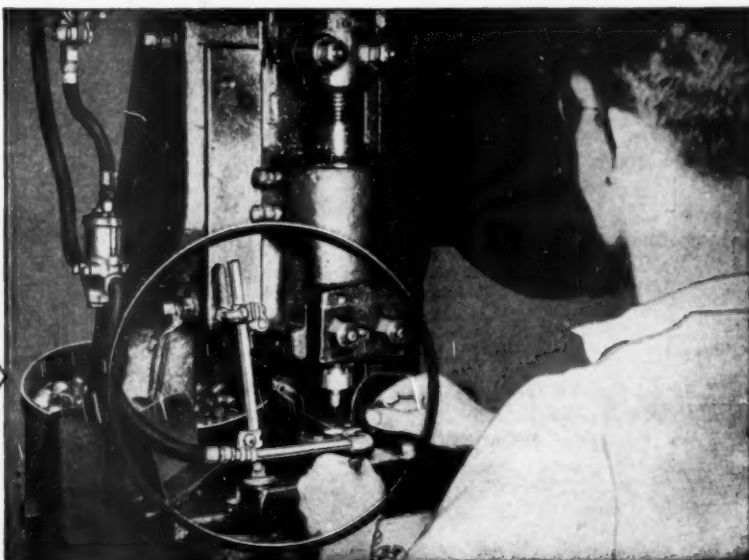
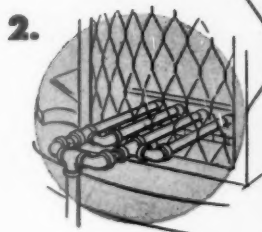
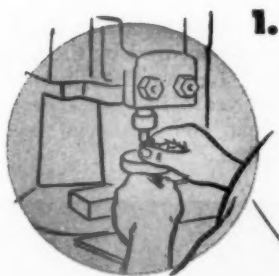
Give Your Ejection Problems the Air ...and boost production and safety

1 End slow, dangerous hand removal of work with a Schrader Air Ejection Set. Install Schrader Air Ejection Sets on your power presses—or any machines with moving parts to actuate a cam or sliding tripper. You'll find production soars—up to 100% ... operator safety is boosted 50%. Replace hand removal with Schrader Air Ejection and watch your presses take a new lease on life.

2 Replace wasteful, homemade steady air blasts with Schrader Air Ejection Sets. Air costs drop as much as 90% because Schrader Air Ejection Sets ration out *just enough* air to do the job ... synchronize your air blast with demand. Before you decide your old compressors have reached full capacity, check with Schrader to see how to cut air waste.

Schrader Air Ejection Sets are delivered fully assembled and ready to go to work. Their low cost is more than repaid in just a few weeks.

See how Schrader Air Ejection Sets will help you plan more effective use of machines. Write, describing the machines on which their use is contemplated—or fill out the coupon below.



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Fluid Insulation Protects Tanks

LARGE SCALE fire tests of foam made with Unox penetrant, a fluid insulation which protects storage tanks that may be exposed to fire, were conducted on May 6 and 7 by the Process Safety Department of Carbide and Carbon Chemicals Company, a Division of Union Carbide and Carbon Corp.

The tests involved a 55,000 gallon storage tank and will add much factual knowledge needed by design engineers to build chemical and petroleum plants with increased protection from fire.

The tests were witnessed by about 70 representatives from the National Fire Protection Association, National Board of Fire Underwriters, American Petroleum Institute, fire equipment and fire insurance companies, as well as chemical and petroleum manufacturing companies.

Unox foam, a recent development of Carbide and Carbon's Process Safety Department, is said

to protect any size storage tank for chemicals, petroleum products, or liquefied petroleum gas. Cost of application is reasonable. It affords protection for large tanks and manufacturing areas that have been left unprotected because of the high cost of installing water spray systems.

The technique is comparatively simple. It involves the aeration of a solution of one per cent Unox fire-fighting penetrant in equipment that is readily available. This foam has about 10 times the volume of the original solution and provides maximum cooling efficiency when applied to actual fires. The foam can be applied easily to almost any fire except in live electrical equipment.

High insulation and heat reflecting value are characteristics of the foam since it is white and

contains enough water to absorb most of the heat generated by any fire. The prescribed rate of application lessens the "heat input rate" by about 70 per cent and proportionately lessens the possibility of damage to equipment and storage tanks that are exposed to fires. The term "heat input rate" is used by fire protection engineers to define the rate of heat that will penetrate the wall of a storage tank in a fire.

The fire tests were conducted near the site of the Institute, W. Va., plant of Carbide and Carbon Chemicals Company. Much of the test information had not been available before. These tests proved that water in combination with Unox penetrant, and applied as foam, is an effective medium for controlling and extinguishing fires.

Unox fire-fighting penetrant is a development of Carbide and Carbon Chemicals Company. It has been approved by the Underwriters' Laboratories and for several years has been used by municipal and industrial fire departments.

James J. Duggan, supervisor of Carbide's Process Safety Department, briefs those attending on progress of tests.

More than 70 witnesses from National Fire Protection Association, National Board of Fire Underwriters, American Petroleum Institute, fire equipment manufacturers, and chemical and petroleum companies witnessed tests.





WITH A KIDDE CO. SYSTEM!

Let fire get a foothold, and a going concern is *gone*. Don't risk it. Install a Kidde Automatic CO₂ Fire Extinguishing System, and fire won't stand a chance. A Kidde System goes into action at the first sign of fire—releases clouds of CO₂ over the blaze, smothers fire almost as soon as it starts. And CO₂ leaves no mess to clean up later. It puts out the fire, then vanishes.

Protect flammable liquids, dip tanks, spray booths with a Kidde System.

Let Kidde guard record vaults, machinery and electrical equipment.

And for on-the-spot protection, get Kidde portables. When fire strikes, just aim the horn, pull the trigger, and *swoosh!* No more fire.

Don't wait 'til your business is a cinder pile—Contact Kidde today.

Kidde



The words 'Kidde', 'Lux', 'Lux-O-Matic',
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DO THESE
2 JOBS WITH
THIS CLAMP

SECURING RUBBER BLANKET

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With **CHARCO'S** dual-purpose
BULLDOG CLAMP

- Stop hazardous, time-consuming, out-moded taping of line hose in position.
- Use this safe, quick, sure method. Charco's combination clamp, with wider curved jaw, fits completely and easily over rubber blankets and conductors. Close-grained, rugged hardwood, carefully finished, all edges rounded, strong rust-proof spring, graduated holes to fit any size conductor.
- Separate blanket clamps and wire clamps of similar superior design also available if desired.
- Charco's Bulldog Combination Clamp, patented, available exclusively from Charleston Rubber Company and its distributors.



Write today for
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Safety products.

CHARLESTON RUBBER COMPANY

Stark Industrial Park
Charleston, South Carolina

Other products manufactured
exclusively by CHARCO include:

CHARCO CHARCO
FLEX-SAF RUBBER GLOVES FLEX-FIT PROTECTIVE SLEEVES

COMING EVENTS



In the Field of Safety

Nov. 10, Ft. Worth, Tex.

Tenth Annual Industrial Institute, sponsored by Fort Worth Safety Council and Fort Worth Chapter, American Society of Safety Engineers. (Hotel Texas). L. W. Graff, safety director, Fort Worth Safety Council, Majestic Bldg., Fort Worth, Tex.

Nov. 17-18, Pittsburgh, Pa.

Nineteenth Annual Meeting, Industrial Hygiene Foundation (Mellon Institute). Dr. Richard Wallmer, managing director, Industrial Hygiene Foundation, Mellon Institute, Pittsburgh, Pa.

Nov. 18-19, Portland, Ore.

Sixth Annual Governor's Industrial Safety Conference (Masonic Temple). Leonard A. Weston, director, Accident Prevention Division, State Industrial Accident Commission, Public Service Building, Salem, Oregon.

Nov. 18-19, Spartanburg, S. C.

Seventeenth Annual South Carolina Statewide Accident Prevention Conference (Spartanburg Memorial Auditorium and Wofford College). J. D. Watson, Jr., safety engineer, South Carolina Industrial Commission, Columbia, S. C.

December 6-7, Baton Rouge, La.

Annual Louisiana Safety Conference (Hotel Heidelberg). Contact Col. Charles E. Doerler, Secretary, P.O. Box 1148, Shreveport, La.

Feb. 27, Mar. 1, New Orleans

Southern Safety Conference and Exposition (Jung Hotel). W. L. Groth, executive director, P.O. Box 8927, Richmond 25, Va.

Mar. 8-9, Philadelphia

Twenty-first Annual Philadelphia Regional Safety and Fire Conference and Exhibit. (Broadwood Hotel). Walter W. Matthews, managing director, Philadelphia Safety Council, 17th and Sansom Streets, Philadelphia 3, Pa.

March 21-22, Houston, Texas

Annual Texas Safety Conference (Rice Hotel). J. O. Musick, general manager, Texas Safety Association, Inc., 830 Littlefield Bldg., Austin, Texas.

Mar. 21-23, Los Angeles

Second Annual Southern California Safety Congress and Exhibit. (Ambassador Hotel). Joseph M. Kaplan, secretary-manager, Greater Los Angeles Chapter, NSC, 610 South Main St., Los Angeles 14.

March 29-31, Pittsburgh, Pa.

Thirtieth Annual Western Pennsylvania Safety Engineering Conference and Exhibit (Hotel William Penn). Harry H. Brainerd, executive manager, 605 Park Bldg., Pittsburgh 22, Pa.

Mar. 30-31, Indianapolis

Eighth Central Indiana Safety Conference and Exhibit (Claypool Hotel). Jack E. Gunnell, Indianapolis Safety Council, 320 N. Meridian St., Indianapolis 11, Ind.

Apr. 11-15, New York

Twenty-fifth Annual Safety Convention and Exposition, Greater New York Safety Council. (Hotel Statler). Paul F. Stricker, executive vice-president, Greater New York Safety Council, 60 East 42nd Street, New York 17.

Apr. 26-28, Grand Rapids, Mich.

Fifth Annual Michigan Safety Conference. (Pantlind Hotel and Civic Auditorium). R. H. Goring, executive secretary, c/o Michigan Bell Telephone Company, Detroit, Mich.

April 26-28, Cleveland

Twenty-fifth All Ohio Safety Congress and Exhibit (Hotel Cleveland and Hotel Hollenden). Headquarters at Hotel Cleveland. A. W. Moon, congress manager, c/o Division of Safety and Hygiene, Industrial Commission of Ohio, Columbus 15, Ohio.

May 18-20, Winston-Salem, N. C.

Twenty-fifth Annual North Carolina Safety Conference (Robert E. Lee Hotel). H. S. Baucum, safety director, North Carolina Industrial Commission, Raleigh, North Carolina.

May 19-21, Richmond, Va.

Virginia Safety Association, Annual Meeting. (Jefferson Hotel). William M. Myers, executive secretary, Virginia Safety Association, Room 302, 1103 E. Main St., Richmond, Va.

Oct. 17-21, Chicago

Forty-third National Safety Congress and Exposition. (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

That idea of Du Pont's in making stretchable fabrics which "expand easily to fit children during several seasons of growth" would help some older folks whose principle expansion is horizontal instead of vertical.

—Advertising Age

**PROVE IT
TO YOURSELF!**

Tuffy SLINGS



FREE Tuffy Sling!
Any Test You Can Devise
Will Prove It's the Toughest
Sling You Can Buy!

The Best Way To Convince A Man of anything is to let him prove it to himself! That's why we are willing to send you a sample 3-Ft. Tuffy Sling, absolutely free. There's nothing to buy, no obligation of any kind!

"Torture Test" This Sling and see for yourself how its patented, machine-braided wire fabric construction enables it to stand up under conditions that would cause ordinary rope slings to fail.

Loop It, Knot It, Kink It, Jerk It! Put this Tuffy Sling to the most grueling tests you can think of! When you see how its extra flexibility lets it resist kinking, its ease of straightening out kinks without material damage, and its unparalleled stamina under stresses and strains of all kinds—then we know you'll be convinced that Tuffy is the toughest in the business!

Your Tuffy Distributor is Set Up For Speedy Service!

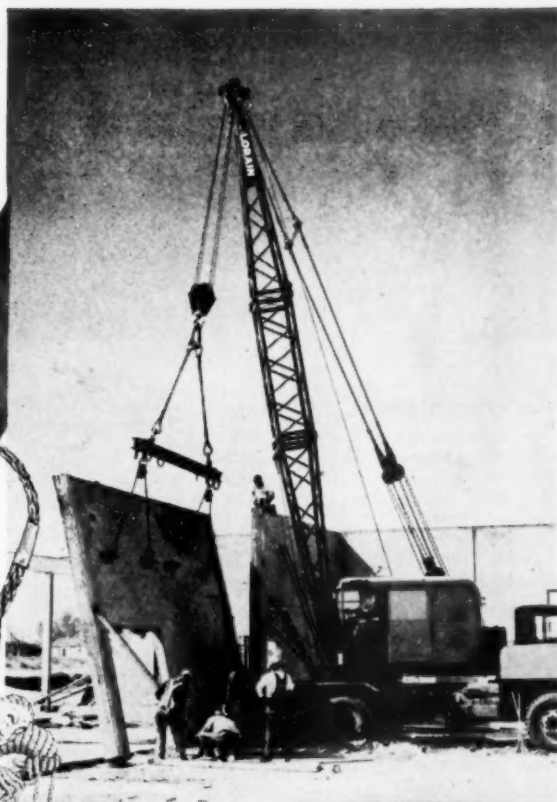
"Fast!" That's the word your Tuffy distributor is accustomed to hearing. He knows how important it is to get you the replacement slings and rope you want, *when you want it*. He's equipped to handle your hurry-up orders and there's a Union Wire depot or warehouse nearby to back him up. For "right now" delivery, call your Tuffy distributor!



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Wire Rope corp.

Specialists in High Carbon Wire, Wire Rope and Braided Wire Fabric

National Safety News, November, 1954



Tuffy HOIST LINE

Matches Tuffy Slings in strength and wearability . . . stays on the job longer to reduce operating costs! Users consistently report Tuffy Hoist Line is the best they've ever used when it comes to flexibility and downright toughness!

No Complicated Specifications! Ordering is easy, because all you need to specify is the length, diameter and the name—**Tuffy Hoist Line**. Get full measure of hoisting service you pay for with Tuffy Hoist Line!



TEAR OFF AND MAIL COUPON NOW!

Union Wire Rope Corporation
2224 Manchester Ave., Kansas City 26, Mo.

At no cost or obligation to me, please rush the material I have checked:

- ☐ FREE 3-Ft. Tuffy Sling!
- ☐ FREE Sling Handbook and Rigger's Manual, Featuring 12 Tuffy Factory-Fitted Types!
- ☐ Name and Address of Tuffy Distributor Nearest Me!

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BY _____ TITLE _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

INDUSTRIAL HEALTH



Abstracts of current literature
on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA
Industrial Department, NSC

Decontamination

How Important Is Surface Contamination? by Merrill Eisenbud, Hanson Blatz and Eugene V. Barry. *Nucleonics* Vol. XII, No. 8, pp. 12 through 15 (August, 1954).

THE COST OF DECONTAMINATING or replacing surfaces in laboratories and plants using radioactive materials is often a burden on the maintenance program. In order to determine whether this decontamination is necessary, this study measured the surface contamination in a variety of radium and uranium plants and compared it, as quantitatively as possible, with the atmospheric dustiness and the urinary excretion of radium and the radon level in the breath of the people working in the plants.

The survey included seven radium dial painting establishments, two plants performing chemical manufacturing operations on radium salts and five uranium processing plants. Samples were taken of surface contamination as measured by alpha-meter readings and smears at random locations on work surfaces. Air dust samples were collected in the breathing zone of the workmen and in the general workroom air and 26 individuals from six of the plants were selected to have breath radon measurements. In the uranium processing plants, urinary uranium was determined on a number of employees.

There is a slight relationship between total floor contamination and air borne dust in these plants. The survey indicates mostly that the contamination of surfaces is not a good criterion for judging whether or not a hazardous condition exists. The fundamental measure of radiation contamination is some method which

measures what is actually being absorbed by the people or measurement of air contamination since the major absorption is by inhalation. Surface monitoring should be deemphasized in favor of these more direct measurements.

Recreation Programs

Recreation Programs in Industry, Health Asset or Liability? by Jean Spencer Felton, M.D. *Industrial Medicine and Surgery*, 23:383-400 (September, 1954).

RECREATIONAL PROGRAMS in industry have a long history and now involve about 24 million par-

ticipants with an annual expenditure of \$163 million. The programs have resulted from the worker's desire for relaxation and the employer's recognition of improved morale and efficiency.

The programs are ordinarily carried out during the worker's free time and are sponsored either wholly or partially by the employer.

There are a considerable number of injuries, certainly, as the result of these programs but records are largely lacking. These injuries have not been uniformly covered by insurance and there have been innumerable suits and claims both in industrial commissions and in courts.

Medical supervision of participants in such programs is usually not as good as it should be. Even in industries where pre-placement examinations are common, medical examination of sports participants has been uncommon.

The majority of the injuries are sprains, strains and contusions. They are particularly common in the middle-aged "athlete" competing without sufficient training.

The injury record in these sports could undoubtedly be improved if the individuals selected as recreation directors were trained workers in the field and if the employees participating in the sports were carefully trained and conditioned before they go into competition. It follows that injuries received in any sort of company-sponsored sport should be reported for future preventive care and that medical care should be provided by the sponsoring company, either through its medical service or through contract with an outside practitioner.

persistent

hoarseness

or cough

...is one of the seven commonest danger signals that *may* mean cancer...but should *always* mean a visit to your doctor.

The other six danger signals are —Any sore that does not heal...A lump or thickening in the breast or elsewhere...Unusual bleeding or discharge...Any change in a wart or mole...Persistent indigestion or difficulty in swallowing...Any change in normal bowel habits.

For other facts about cancer that may some day save your life, phone the American Cancer Society office nearest you, or write to "Cancer"—in care of your local Post Office.

American Cancer Society





Working for You
to Make Safety Work

UNITED STATES SAFETY SERVICE CO.

P R E S E N T S

a new concept
in complete
eye correction-protection programs
for industry!

newest **styling** P L

in appealing colors



Men's Blue

Women's Blue

Women's Burgundy

Men's Bronze

US

USSSCO's

corrective lens IN OPTILITE "A" *

SINGLE VISION... BIFOCAL... PLANO

* the new, superior, safety lens material

not a glass . . . not a thermoplastic . . . but an exclusive USSSCO formula of compounded resins

Here is the FIRST smartly styled modern industrial safety frame complemented with rich, selective colors . . .

Here is the FIRST shatterproof prescription safety lens (in USSSCO famous Optilite "A") ever offered for eye correction-protection . . .

Here is USSSCO's revolutionary safety spectacle of tomorrow, here today . . .

USSSCO Butyrate frames provide greater strength, longer life, richer finish

Frames and lenses meet all Federal Specifications

All Optilite "A" lenses also available in standard P-3 shape, metal and plastic frames

THE NEW SHAPE
Style / ze
INDUSTRIAL SAFETY LENS



- Greater strength and only half the weight of hardened glass.
- 5% to 8% better light transmission.
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- More resistant to hot metal splashes and pitting.
- Shatterproof . . . won't yield small, sharp fragments when broken.
- Lighter . . . more comfortable . . . stronger . . . attractive. These new style shape spectacles eliminate the common objections to wearing eye protection.



Another
U S S S C O
First!

2 New SAF-I-SPECS

All Plastic Safety Spectacles

For Women

Choice of 2 color frames, Charcoal, Burgundy.
Especially designed for feminine facial contour. Safe, attractive, comfortable.

Working for You
to Make Safety Work

A fully experienced USSSCO service engineer is available to assist you
in your eye-protection program.

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BRANCHES IN PRINCIPAL INDUSTRIAL CITIES
IN CANADA: PARMELEE, LTD., TORONTO & MONTREAL

Contact your nearest USSSCO Sales office listed in the classified section of your telephone directory or write direct to USSSCO General Offices, Kansas City, Missouri.

For Men

attractive charcoal-color frame in new masculine style. Offers maximum "spectacle-type" protection. Feather-lite comfort.

Light—less than an ounce in weight
Velvet-soft nose bridge
Replaceable lens may be easily changed without tools

Plastic lens meets Federal specifications for optical qualities and impact resistance

OPTILITE is USSSCO's registered trade name for exclusive Formula optical plastics.



Obituary

ALVAH R. SMALL

ALVAH R. SMALL, retired vice-chairman of Underwriters' Laboratories, died October 8, at his home in Pompano, Fla., at the age of 71.

Mr. Small was born in South Portland, Maine, December 7, 1882. He attended South Portland Elementary and High School and received his BS Degree in Civil Engineering from the University of Maine in 1904. Upon graduating he joined the Staff of the New York Fire Insurance Exchange until 1906.

On October 1, 1906, he joined the Staff of Underwriters' Laboratories in Chicago as an assistant electrical engineer. In 1910 he formed the Label Service Department which was charged with the factory follow-up inspection of listed products. In 1916 he was promoted to vice-president. In 1924 he was transferred to the Laboratories' Office in New York. In January, 1935, he was elected president of Underwriters' Laboratories and transferred to the main office and testing station in Chicago. In June, 1948, he relinquished active control of the Laboratories' work and was made vice-chairman of the Board of Trustees.

He was a past-president of the National Fire Protection Association and was widely known as chairman of its Electrical Committee. This committee compiles, amends, revises and publishes the National Electrical Code, the most widely adopted and observed Safety Code in the United States. He was also a member of the Advisory Engineering Council of the National Board of Fire Underwriters, as well as holding committee memberships in many other groups of the N.B.F.U. He was also on the Board of Directors and a member of many committees of American Standards Association, American Society for Testing Materials, Building Officials Conference, International Association of Electrical Inspectors and a fellow of the American Institute of Electrical Engineers.

slips

do

count



Slips pile up your medical costs and compensation payments. They inflate your payrolls. (How much does it cost you to train and pay an unskilled substitute while an absentee victim's salary continues?)

Slips leave you wide open to law suits and, since they count against your Safety record, very likely increase your insurance premiums.

Isn't it time you were introduced to LEGSURE*, the modern Safety Floor Polish that reduces slip-fall accidents by up to 98%. LEGSURE gleams without buffing, minimizes scuffing and retains its slip-resistance for months without the need for stripping.

It saves you *Big tangible dollars*, too, on floor maintenance. Up to 25% on materials. Up to 50% on labor.

For full information, fill out and mail the coupon. Today, please.

Walter G. LEGGE Company, Inc.

Dept. NS-11, 101 Park Ave., New York 17, N. Y.
Branch offices in principal cities. In Toronto —
J. W. Turner Co.

*LEGSURE is sold only by the LEGGE Company and its authorized representatives.



Walter G. Legge Company, Inc.
NS-11, 101 Park Ave., New York 17, N. Y.

- ☐ Send more information on LEGSURE.
☐ Send your Free booklet, "Mr. Higby Learned about Floor Safety—the Hard Way!"

Name _____

Firm _____

Street _____

City _____ Zone _____ State _____

Everybody Works for Safety

(From page 35)



Visits to crews. Electric and gas crews are visited in the field and their operations studied to determine possible improvements in methods.

Safe practices pamphlets. We cooperate with department heads in the preparation of safe practices pamphlets. A recent pamphlet, "The Life and Death of a Rubber Glove," was widely distributed throughout the company and to accident prevention committees of local, state, and national organizations. To date we have distributed more than 3,000 copies, 200 of them to foreign countries. Requests are still coming in.

Off-duty accidents. Prevention of accidents to employees and their families while at home and on the streets and highways is an important part of our program.

Suggestion awards. We are represented on the suggestion system committee and many employee suggestions are referred to us directly for investigation and reply. Many suggestions submitted to department heads are referred to us.

Safe Driver awards. Employees who have driven a company car 100 hours or more in a three-month period are eligible. An individual's record is cumulative but a driver is penalized one year for an accident involving negligence and six months for contributory negligence. In 1953, 522 drivers were awarded President's Safe Driver Certificates for periods of 10 to 29 years. In addition, gold watches are awarded for records of 25 or more years. Last year 55 men received these awards, making a total of 140 since the plan was started in 1950.

Life-saving awards. When we hear of a case of life saving we investigate the details. When warranted, application is made to the national organization having jurisdiction. Awards for life saving have been received by 133 employees in 54 individual cases.

Annual meeting. At the close of the year a safety dinner is held. Drivers who have accumulated ten

or more years of safe driving attend, also executives, department heads and safety chairmen. Attendance is between 400 and 500.

Cooperation with outside agencies. We are represented on the accident prevention committees of local, state and national organizations and have been able to make useful contributions to safety work throughout the country.

Recognition. For 25 consecutive years, the Philadelphia Electric Company has won the Pennsylvania Department of Labor and Industry Merit Award. Awards from other organizations are as follows: Pennsylvania Electric Association, 9; Edison Electric Institute, 4; American Gas Association, 5; National Safety Council, 7; Philadelphia Safety Council, 1.

The Results . . .

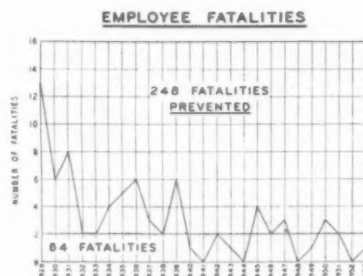
The two charts tell part of the story. Using 1929 as the base year for calculating safety progress, Chart No. 1 shows that in the 24-year period we had 2,435 disabling injuries. Had we continued at the 1929 rate there would have been 7,165 additional injuries.

Chart No. 2 shows 64 fatalities during the period—and 248 that were prevented.

A comparison of frequency rates since 1929 shows that the trend for the Philadelphia Electric Company has paralleled quite closely that of the average for the public utilities industry as compiled by the National Safety Council but in every year its rates have been substantially below average.

During the 24-year period we had 2,744 responsible automobile accidents. Due to accident prevention activities 10,432 were prevented.

The savings. Since 1929 accidents have cost us approximately \$1,100,000. Through the reduction in accidents we have saved at least \$3,000,000 in spite of increasing compensation rates.





*"You're all Invited
for Thanksgiving"*

In just a little while, all America will be sitting down to its Thanksgiving dinner.

There will be grandpa and grandma and mother and father and the kids. A big, golden-brown turkey with all the fixin's. And words of gratitude for the many blessings the year has brought.

At Thanksgiving, as on so many other occasions, it's the telephone that brings the family together. It carries the welcome invitation to "come to dinner" and helps to get everything arranged.

Someone, somewhere—close to home or far away—would enjoy hearing your voice by telephone today.

BELL TELEPHONE SYSTEM LOCAL to serve the community. NATIONWIDE to serve the nation.



NOW YOU CAN RENEW BUSY FLOORS overnight



with
Hillyard
Quick Dry
Industrial
Finishes

Built to Take
Production
Loads

The Hillyard TREATMENT for WOOD

- Dries in 2 hours—avoids delay in work schedules.
- Keeps floors light for better light diffusion.
- Slip-Resistant for Safety underfoot.
- Extremely high abrasion resistance—assures longer service without expensive refinishing.
- Increased coverage—costs you less in material and labor time.

The Hillyard TREATMENT for CEMENT

- Eliminates acid etching of new or old floors.
- Permits proper adhesion of finish coat for long lasting protection against dusting of cement areas.
- Traffic or worn spots can be quickly touched up.
- Reduces maintenance—to fast daily

In **SURFCOAT** and **CEM-SEAL**, Hillyard has combined quick-dry properties with heavy-duty protection that allows fast and lasting finishing or refinishing of plant-wide floors. Vital areas may be opened to traffic in only a few hours, avoiding tie-up in work schedules. These products, backed with the knowledge of 50 years experience represent a real advance in industrial floor care. Because quick-dry finishes to date often sacrifice heavy-duty properties, these new products, giving you *combined* advantages, find wide acceptance in industry.

CLEAN Heavy-Soiled Areas with Hillyard **RENOVATOR**.

MAINTAIN Floors the Flame-Proof Way with **HIL-SWEEP**—leaves floors clean and dust-free with no harmful effect on your surface finish. Fire-tests prove Hil-Sweep will not burn.

WRITE for a demonstration! Your nearby Hillyard Maintaineer is prepared to show you how Hillyard products researched for industrial floors will solve floor treatment and maintenance problems in your plant.

"On Your Staff—
Not Your Payroll!"

ST. JOSEPH, MO.

San Jose, Calif. • Passaic, N.J.





The medical trailer which is bringing free physical examinations to employees at Champion Paper and Fibre Company's plants. It contains a miniature but complete laboratory.

Below: Inside view of the health trailer. Facilities provide for eye and ear examinations, X-rays, blood tests, electrocardiograms, etc. In the opening phase of the program some 90 per cent of the company's 8,000 employees have taken these examinations.

Trailer Clinic Aids Health Program

A COMPANY-WIDE program of physical examinations has been introduced by the Champion Paper and Fibre Company for all employees in the General Office, Hamilton, Ohio, and divisional mills at Hamilton, Canton, N. C., and Pasadena, Texas.

During the opening phase of this new preventive health program, more than 90 per cent of the company's better than 8,000 employees in the three-state area have taken advantage of the cost-free examinations, conducted for the firm by Occupational Health Services.

In unique trailer-clinics, equipped with modern facilities, each Champion Paper employee received a thorough examination by a leading physician from the local community, along with X-rays, blood tests and other laboratory investigations.

Following the examination, each employee was provided with a personal letter, detailing the findings of the physician and laboratory, such information being kept strictly confidential and released only to the employee or his or her personal physician.

Recommendations for treatment



by the employee's personal physician were outlined in the report where necessary, since Champion's medical departments maintain a firm policy of referring such cases to the employee's personal physician.

By making detailed examinations available at regular intervals to all employees, in addition to providing the services of mill physicians, nurses and technicians, the company hopes to raise health levels, while further reducing absenteeism and accident rates.

The Occupational Health Services' trailer-clinics are complete in themselves, attached to the mill proper only through hook-ups to water and electric power

systems, as well as to telephone communication for efficient scheduling.

The trailers house a series of examining rooms, where the doctor checks the health of each patient just as he would in a hospital or in his own office, rooms where sight and hearing are tested, and facilities for special tests like electrocardiograms.

A miniature, yet complete, laboratory makes it possible to handle all necessary determinations to round out the health picture of the individual immediately, with the findings coded by an IBM system and kept in a permanent record.

The health picture of the em-

—To page 108



STRONG—STURDY—LIGHTWEIGHT

Daytons

ARE SAFER

The accepted standard for ladders, Dayton's are built of selected, tested kiln dried Sitka Spruce, Douglas Fir, or West Coast Hemlock. Designed in accordance with the latest specifications of the "American Standards Association Safety Code," and to meet Underwriters Laboratories Standards for Ladders.

APPROVED AND LABELED BY UNDERWRITERS LABORATORIES

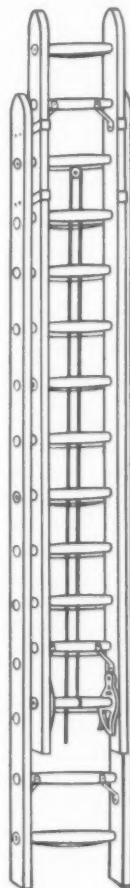


DAYTON Fig. 200 is a well constructed step ladder built for heavy industrial use to stand maximum abuse. Can be supplied with fully radded back for extremely heavy duty jobs. Bucket rack optional. All hardware zinc plated. Sizes 4' to 16'.



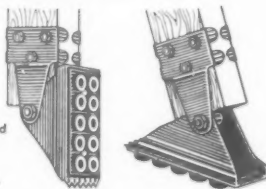
DAYTON Type A is constructed of tested airplane spruce, reinforced with rigid steel supports for great strength, lightness of weight. Handrails of steel guard large roomy platform for added safety. These famous ladders can be set up instantly, are easy to carry and fold compactly for storing. Automatic locking feature insures safety while ladder is in use. Standard rubber safety shoes no extra cost. Sizes 3' to 12' to platform.

DAYTON Fig. 102, a strong ladder for general industrial use. 1-5/16" x 2 3/4" side rails (available 1 3/8" x 3 1/4" side rails if desired—DAYTON Fig. 100). Three truss rods and four dowel braces per section for extra safety. Available with spring locks, rope and pulley if desired. All hardware is zinc plated. Sizes 16' to 40'.



DAYTON Type H, an extremely rugged type ladder, designed and built to meet the demand for a platform ladder with mill wright (rung) type back construction. Tool shelf on top. Ladder shoes standard equipment. Folds absolutely flat for easy storage. Features include pinch-proof type spreaders—corrosion resistant zinc hardware—slip proof treads. Sizes 4' to 16' to platform.

Rubber tread or spiked toe for double use.



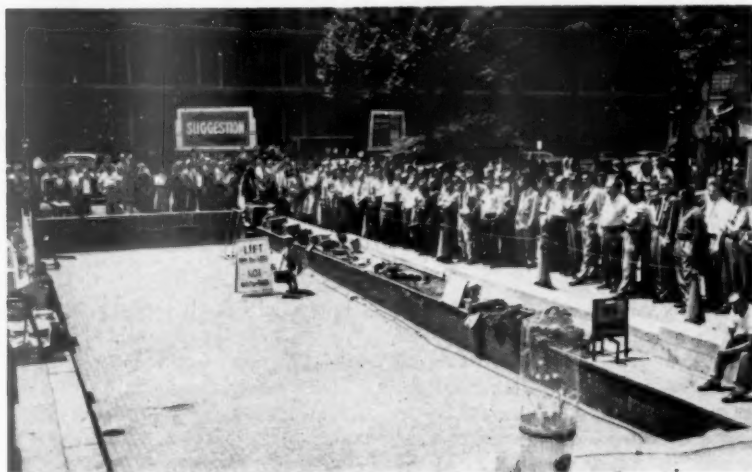
DAYTON Safety Ladder Shoes . . . Special suction rubber tread (also in neoprene) really grips. Instantly converted for indoor or outdoor use. Base: 16-gauge steel. Side plates: 13-gauge steel. Renewable treads. Lock nuts, spring washers assure proper adjustment. Zinc plate finish.

Dayton

safety ladder co.

2339 Gilbert Ave., Cincinnati, Ohio
In Canada—SAFETY SUPPLY CO., TORONTO

Colorful Presentation at RCA Plant



RCA's Camden plant had a field day in connection with the presentation of the National Safety Council's Award of Honor. Many phases of accident and fire prevention were demonstrated. Here an attractive young lady in shorts is showing the assembled employees the correct way of lifting.

A UNIQUE TRAINING SESSION in the use of safety, fire and medical equipment gave color to the presentation of the 1953 National Safety Council Award of Honor at the Radio Corporation of America's Camden Plant on May 26.

The program allowed time for employees, who had their lunch period at that time, to see the displays and demonstrations and to hear and see the actual presentation of the Award to T. A. Smith, Vice-President, Engineering Products, by NSC Area Representative Walter W. Mathews, Philadelphia. Ceremonies were held in a city park adjacent to the plant.

Plant safety officials O. C. Boileau and R. E. Shield enlisted the cooperation of the plant physician, Dr. W. G. Vernon, and Fire Marshal Frank Welsch in the construction of a display of safety, fire and medical equipment used in the plant that would emphasize the "why" of the Award.

A well-built girl in shorts, who demonstrated the proper manner of lifting, drew attention to the safety exhibit, where safety and protective equipment designed to protect the employee from head to toe was also exhibited. A "Man from Mars"-type suit, designed for the protection of testers in stratosphere chambers under all

climatic and temperature conditions, gave the spectators an idea of the scope of protective equipment used by the Company. All displays were hand-picked to fit the operation within the plant.

Frequent fire alarms drew crowds around the fire fighting and prevention exhibit which included a complete fire alarm system to dramatically illustrate what happened when the glass was broken and an alarm turned in. Firemen demonstrated every type of extinguisher used in the plant to re-instruct employees on the how, when and where of their use. Fire-fighting clothing including gas masks and an asbestos suit were on display, and smiling young ladies in fireman hats handed out cards on "What to Do When the Fire Alarm Sounds" and "How to Turn In a Fire Alarm."

One employee, who volunteered as a "patient" at the medical exhibit, was able to take her own electrocardiograph tracing home with her. Artificial resuscitators and resuscitation methods were demonstrated and other medical equipment, including x-ray machines, medical emergency bags, and protective creams to control dermatosis, was on display.

The Camden Plant safety program is organized to whet the in-

terest of everyone in the Company from top management down. Managers meet with each other and with safety committees in their own divisions. Supervisors have special training programs and receive current safety information through the *Foreman's Weekly Forecast* and can find answers on policy and procedure in the *Foreman's Handbook on Safety*.

New employees are encouraged to become safety conscious even during their first Company contact as an employee—in their orientation training classes. Re-hired employees also receive this attention.

Safety contests are timed throughout the year and wide use is made of the plant public address system, plant bulletin boards, and internal plant publications such as the *RCA Family News*.

Announce Awards for Fire Safety Promotion

The National Board of Fire Underwriters has announced that it is again conducting its Gold Medal Awards for outstanding public service in fire prevention and fire safety. The awards have been made annually since 1942 to daily and weekly newspapers and to radio. In 1952 the program was expanded to include TV stations.

By 1953, 12 dailies, eight weeklies, and 14 radio or television stations had been honored and some 100 others in their respective classifications had received Gold Medal Honor Award Citations.

The Gold Medal, or its equivalent of \$500 in cash, is awarded the winner in each of four classifications—daily newspaper, weekly newspaper, radio station, television station. In addition, a number of Gold Medal Honor Award Citations are presented.

Entries usually are nominated by local fire departments, civic organizations, community leaders or town officials. On the other hand, many newspapers, radio or television stations nominate themselves as candidates for the awards. In either case, the nomination should be supported by a scrapbook of clippings, letters, photographs, recordings, etc.

Getting Management's Ear

By GLEN D. CROSS

**Before blaming the boss for lack of support
better take a good look at your program**

ALL of us have heard it many times, "You must have top management backing to get results in accident prevention work." It is sometimes repeated in reverse by a safety man who is not getting good results or who has been let go by his company, "I couldn't get management backing, so I couldn't get anywhere in reducing accidents."

We have been very fortunate at Firestone in that we have strong top management support. This support has not always been present in the degree to which we now enjoy it and I would like to mention some of the steps we have taken to increase this support.

Contrary to the belief of some safety engineers, I believe that lack of top management support is at least 50 per cent the fault of the safety engineer. There are exceptions, of course, but it is my own feeling that a safety engineer can do much to increase the support he gets from his management.

Some do's that we as safety engineers can practice to increase management support are:

1. Have A Good Practical Program.

Having a good practical program doesn't mean one that is going to cost a lot of money to start or one whose parts must all be started at once. Too many safety engineers place an elaborate program before the plant head and say, "This is it, take

it or leave it. All or nothing."

I'm a patient individual myself and I've always been willing to take "half a loaf" rather than try to get everything in one try. Some parts of the safety program that I had in mind when I came to Firestone twelve years ago, we are just putting into effect now. A thorough knowledge of the company itself and of company policy will help in deciding what parts of a program will most likely be acceptable to management.

For example, it would be folly to propose a safety contest to a management that has always been against holding contests of any type. Later, such a proposal might be more acceptable. It is suggested that the part of a safety program that would seem to be most in line with general company policy would be the best to propose at the start.

2. Be sure to sell middle management as well as top management.

It is not enough just to sell top management on the program. It is necessary that we go a step further and sell the next echelon

lower, although top management support will certainly help sell this group. Failure to sell the plant superintendent, plant engineer, and other such individuals and to rely on top management backing alone can wreck an entire program before it really gets started. A safety engineer needs the wholehearted cooperation of all management personnel if he is to have a successful safety program.

3. Keep top management informed of progress.

It is necessary to take the initiative in giving the facts to management on how the program is progressing and whether the accident rates and accident costs are going up or down. Most of us like to pass on good news, but we may be reluctant to do the same with bad news. Covering up adverse news about accidents or injury records will be of little help and might cause trouble later.

A safety engineer should always keep his top management abreast of accident cost figures to help show them the importance

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HOW TO GET MANAGEMENT BACKING

- 1. Have a good practical safety program to propose**
- 2. Sell middle management as well as top management on your program**
- 3. Keep top management informed of progress**
- 4. Invite participation by top management in your program**
- 5. Encourage top management to participate in safety council work**
- 6. Bring to top management for action only important questions of policy**
- 7. Work hard to make the program work.**

GLEN D. CROSS is Director of Safety and Supervisory Training, The Firestone Tire And Rubber Company, Akron, Ohio. This article was presented before the Rubber Section, Forty-Second National Safety Congress.

Wausau Story

by **DON W. DOUGLAS, JR.,**
Director and Vice President of the Douglas Aircraft Company



"Four young fishermen, happy as skylarks..." Mr. Douglas talks over fishing, scouting and jet airplanes with Kenneth King (left), Alfred King, Jerome Roble and Clarence King (right).

Employers Mutuals of Wausau are "good people to do business with"

Mr. Douglas speaks of a way of life in Wausau—a good way of living and doing business. This Wausau "personality" extends far beyond Wausau. You will find it in each of this company's 89 offices across the country. It means a fairness that bends over backwards to give our customers the protection and service they expect.

We handle all lines of fire and casualty insurance, and **workmen's compensation**

is our specialty. More than in any other kind of insurance, the cost of workmen's compensation is *controllable*. And the better the insurance company, the more controllable. For example, Employers Mutuals' accident prevention program can mean lower insurance costs for policyholders. An Employers Mutuals man will show you how. Phone our local office or write to Wausau, Wisconsin.

Employers Mutuals of Wausau



What is there about Wausau, Wisconsin, that makes it the ideal home for one of the world's most important insurance companies?

Employers Mutuals invited a leading airplane manufacturer to visit its hometown and find out.

WHEN I saw them they were hurrying down the road on their bicycles. Four young fishermen, happy as skylarks. "ANY LUCK?"

They showed me their catch (picture left). Sixteen black bass, real beauties. "We caught 'em in the Eau Claire River," said Clarence King. "We just used worms...scout's honor."

Looking in those vigorous young faces, I could tell a lot about Wausau. It's a good country for kids to grow up in.



Here's just one example of Wausau's progressive spirit. The beautiful Alexander Airport, just a mile or so from the stream where the boys had fished. As I told Ken Schuck, the airline manager (above left), this is as modern and well-equipped an airport as I've ever seen. Wausau is like this...a city of far-advanced industry, yet with the Woods at its doorstep.



I visited the Wausau Boy Scout Day Camp with "Mac" McCormick of the *Record Herald* (above right). The magnificent new field stone lodge was built for the scouts by the citizens of Wausau, who, if they couldn't give money, gave their own time and services to make this building possible.

I saw this spirit at work everywhere. It's the spirit, too, of Employers Mutuals. And it accounts for what so many say—that they're good people to do business with.

PERSONALS



Changes in Du Pont Medical Division

DR. GEORGE H. GEHRMANN, director of Du Pont's Medical Division since 1926, retired as director October 1 but will continue as associate medical director until his retirement from the company November 1 of next year, the company announced.

DR. ALLAN J. FLEMING, who has been assistant director since 1948, was appointed to succeed Dr. Gehrmann as head of the division. DR. C. A. D'ALONZO, assistant to the management of the division, was named assistant director.

Dr. Gehrmann was largely responsible for developing the Du Pont medical program and has seen it grow from a small office manned by one doctor, one nurse, and one secretary to a medical unit which is one of the largest and most complete in American industry. He has been with the company since 1915, except for a period in the Army during World War I, and became head of the Medical Division in 1926. He was graduated from Long Island Medical School in 1913.

Dr. Gehrmann is past president of the American Academy of Occupational Medicine. He is a fellow of the American College of Physicians, the American Medical Association and the American Public Health Association. He is a member of the President's Committee on Employment of the Physically Handicapped, and a member of the Advisory Board of the Greenbrier Clinic, White Sulphur Springs, W. Va.

Dr. Fleming joined Du Pont in 1937 as a toxicologist in the Haskell Laboratory and became assistant director of the laboratory in 1941. He was appointed assistant director of the Medical Division in 1948.

He was graduated from the

University of Manitoba with a bachelor of science degree in physics in 1924 and received his master's degree there in 1926. He attended medical school at McGill University from which he received his M.D. degree in 1932. Prior to joining Du Pont, he was plant physician at the Beloeil plant of Canadian Industries Ltd., McMasterville, Quebec.

Dr. D'Alonzo joined Du Pont in 1939 and was appointed medical supervisor at the Experimental Station at Wilmington. After military service during the war, he continued as supervisor of the medical unit there until May 1953, when he was appointed assistant to the management of the Medical Division.

A native of Wilmington, he attended the University of Virginia where he received both his bachelor of arts and M.D. degrees.

WILLARD H. BAUMANN, has been appointed to the new post of Industrial Hygiene Engineer at Jones and Laughlin Steel Corp.

A graduate of the University of Pennsylvania in chemical engineering, Mr. Baumann comes to J&L from the Carbide & Chemical Company, Oak Ridge, Tenn., where he served as Industrial Hygienist since 1948.

Mr. Baumann also served as a junior engineer for the Electric Storage Battery Company, Phila-

SAFETY/FIRE PREV. ENGINEER AVAILABLE
Heavy, diversified multiplant exper. over 10 years. Excellent performance record showing big savings-to-cost differential. Primary interest in opportunities for real accomplishment, and job future. Write Box 446, NATIONAL SAFETY NEWS.

MANUFACTURER'S REPRESENTATIVES WANTED

Ambitious qualified men eager to supplement their income with additional lines of high quality welding accessories and industrial protective equipment. Must have contacts with wholesale welding supply, mill supply, and safety equipment firms in any or all of the following exclusive territories: Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Wisconsin, and/or Chicago. Reply in detail to: American Industrial Safety Equipment Co., 3300 Lakeside Ave., Cleveland 14, Ohio.



Willard H. Baumann

delphia, from 1920 to 1942; as industrial hygiene engineer for the United States Public Health Service from 1942 to 1946, and as Industrial Hygiene Engineer for the Illinois Department of Health from 1946 to 1948.

At J&L, Mr. Baumann will carry on activities designed to maintain high environmental, health, and sanitation standards in all operations.

LEE C. KING, safety director for Fort Knox since January 1949, recently left for the Far East to fill a key position in safety.

Affectionately regarded by his associates as the "dean" of the Army's accident prevention specialists, Mr. King has been on the civilian rolls of the Army for more than 30 years. His service has been marked by outstanding accomplishments in accident prevention which have received recognition from the Army and from the National Safety Council.

Mr. King, a native of Massachusetts, is considered an adopted son of Kentucky. He has lent his full support and experience to the furtherance of traffic safety in Kentucky and is widely known in Hardin County for his frequent public appearances and radio talks.

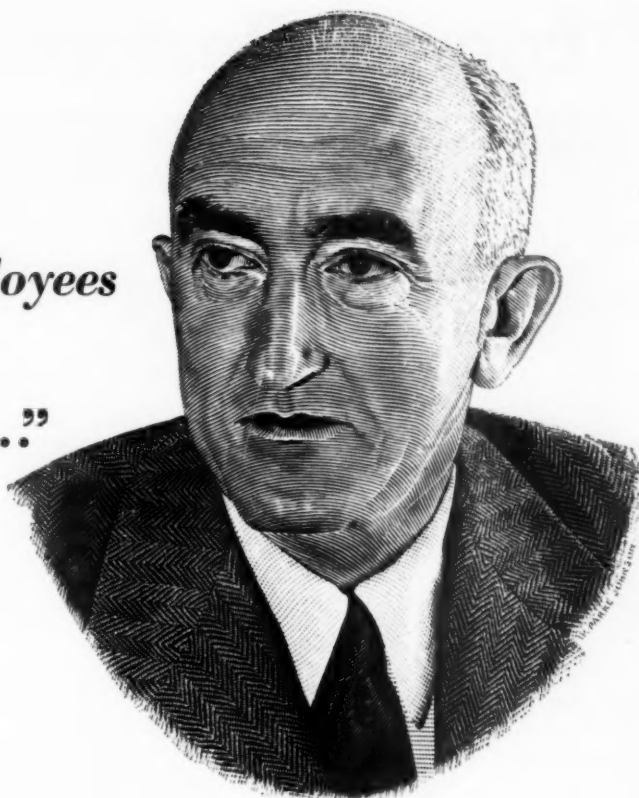
He has held safety positions in many parts of the United States and overseas. Before he came to Fort Knox he crusaded for safety in the tropics, and as the result of his instituting an accident preven-

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***"Boeing's 59,000 employees
feel closer
to the company..."***

WILLIAM M. ALLEN

*President
Boeing Airplane Company*



"Boeing's 59,000 employees feel closer to the company since our recent successful person-to-person payroll savings drive in the Seattle and Wichita Divisions. Through letters and personal observations many employees have told us they have a greater sense of being a part of the company—that Boeing is interested in the welfare of each and every man and woman on the payroll."

That's the way it is with Payroll Savers. With the realization that systematic investment in U. S. Savings Bonds is a sure road to the down payment on a home, comfortable retirement, or other objectives, comes a better appreciation of a man's job and his company.

To most Payroll Savers, a day's absence from work means just that much out of his take-home savings. And he no longer takes chances, because he wants to stay off the accident list. He looks for better and quicker ways to do his job—promotion will mean more dollars for Savings Bonds. As a stockholder in America he takes a better interest in national affairs, the sound dollar, and economic stability.

91% of Boeing's 65,000 employees—more than 59,000 men and women—are Payroll Savers, as a result of a person-to-person canvass that put a Payroll Savings Blank in the hands of every Boeing employee. Certainly

that is a high percentage of which Mr. Allen may well be proud. But it is not exactly unique. A number of the 45,000 companies which have the Payroll Savings Plan have 90% participation: many are in the 80% to 90% group, and many more are in the 60%, 70%, 80% class. In every case, these high percentages followed a person-to-person canvass that put a Payroll Savings Application Blank in the hands of every employee.

If less than 60% of your employees are Payroll Savers, do something about it. A phone call, telegram or letter to "Savings Bond Division, U. S. Treasury Department, Washington, D. C.," will bring prompt assistance from your State Director, U. S. Treasury Department. He will help you install, or revitalize a Payroll Savings Plan, through a simple, person-to-person canvass which your employees will be glad to conduct.

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

NATIONAL SAFETY COUNCIL



Energy Restored



Machine serves hot coffee to suit all tastes—with or without cream or sugar, with both, or plain. Four-second service is fast enough to serve all employees during their break period without waiting in long lines.

WHEN well planned, the coffee break serves as an effective employee relations and production tool, sharpening work efficiency, reducing fatigue and boosting morale.

Badly planned or poorly serviced coffee breaks, however, can result in cost, service, and morale headaches.

Four checkpoints for planning effective, smooth-running coffee breaks, offered on the basis of Bert Mills Corporation's experience in installing coffee vending machines in factories, stores, and offices, include the following:

1. When?

Fatigue-combating breaks are most effective just before fatigue reaches its peak, normally about 10 a.m. and 3 p.m. Disabling injuries are reported most frequently between 10 and 11 o'clock in the morning and 3 and 4 o'clock in the afternoon.

2. How Long?

Time-length depends on the distance employees have to go, and how fast they can be served.

Availability of coffee at locations close to work, and a speedy dispensing system cut down the time. Excessive time loss, however, due to slow service or de-

pendence on outside restaurants, can result in serious work delay.

3. What Type?

Assembly line operations in which entire departments, or sections of departments, work as a unit, require set-time breaks. Staggered schedules are necessary in large plants unless the company's dispensing method can serve all departments at once. A disadvantage of staggered breaks is that the first and last departments having coffee may "break" too soon after breakfast or too close to lunch.

Another kind of break, unlimited coffee service, is widely practiced in job shop plants and offices where operations are performed individually. Coffee available all day from vending machines enables employees to "break" on their own during natural pauses in the work, or take the coffee back to their desks. A bonus benefit for most employees is that they can enjoy a "perk up" in the afternoon without leaving the office, store, or plant.

4. Where?

Coffee served close to work areas provides the best benefits to both management and employees, because the break re-

quires less time, and employees spend a greater proportion of their rest period resting.

Careful planning on the basis of these checkpoints, according to Mills officials, will enable companies to avoid such problems as abuse of time limits, long waiting lines, production interruptions, and excessive cost. These problems can become serious headaches if a company's coffee break is not planned to meet its needs.

Principal methods of serving include cafeterias, vending machines, carry-in service, mobile carts, and stationary snack shops.

Honored for 50 Years Service With NBFU

ROBERT C. DENNETT, engineering consultant of the National Board of Fire Underwriters, was honored October 1 at a dinner in New York's Hotel Commodore, marking his retirement after 50 years of continuous service.

Only once before has a golden anniversary been achieved by a staff member of the National Board. The member, Wilbur E. Mallalieu, general manager, retired December 31, 1950.

Mr. Dennett, who joined the National Board on October 1, 1904, soon after graduation from Cornell University, was a field engineer 15 years, office engineer 25 years, and assistant chief engineer 10 years.

During World War I and II he was a dollar-a-year man on loan to the Government, first as head of the fire protection section of the Emergency Fleet Corp. which had taken over the operation of 250 shipyards and outfitting plants during World War I, and later, in World War II, as advisory engineer in charge of fire protection for the Navy's Bureau of Yards and Docks.

A licensed professional engineer in the State of New York, Mr. Dennett is active in various engineering organizations. He is a life member of the American Society of Civil Engineers, the American Water Works Association, and the New England Water Works Association.

IS THERE A THIEF IN YOUR SHOP?



Not if you use new, disposable KIMWIPES!

Don't let expensive cloth and waste wipers rob you of profits. Replace them with Type 1300 KIMWIPES—the *modern* industrial wipers that give you four to ten times more wiper area per dollar!

Yes, and new Kimwipes 1300 are soft, strong and absorbent. A full 12" x 18" in size, they hold up to 8 times their own weight in liquids. They're non-abrasive, too. There's no holdover of metal chips or other infectious material that may cause dermatitis and loss of man hours. Type 1300 Kimwipes are absolutely clean to start with, and are disposed of after use. Ask your salesman for samples. And remember, you can also buy Type 900-S Kimwipes (optical wipers) and Type 900-L Kimwipes (regular wipers). Save money. Order today!



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Receive and Transmit

.... Two things a meeting should do

By NORMAN C. ALLHISER

- How much of your time is spent in meetings?
- Are these meetings effective?
- Why do some of these meetings fail?
- How can each of us improve on skill in conducting meetings?

ACCORDING to a recent article in *Fortune Magazine*, a study of 241 successful business executives' work habits revealed that a significant change has taken place in the work of the business executive. It involves more and more contacts with individuals. The average executive spends roughly six of his eight hours talking with other executives, meetings, and conferences. Our own contact with executives certainly bears out the fact that much of their time is spent in either attending or preparing for meetings. These meetings take time, money, and energy.

To delimit the area of our discussion, we will consider primarily the problem-solving meeting. Such meetings may be defined as the gathering of three or more persons who are discussing a problem which requires individual or group solution.

First of all, let us try to determine why some meetings are ineffective. Before we can suggest correct action for improving meetings, we will have to find out what difficulties or problems have been encountered. Some of the reasons for ineffective meetings are shown in the accompanying table.

It would appear from these

NORMAN C. ALLHISER is Director, Industrial Management Institute, The University of Wisconsin, Madison, Wis. This article was presented at the session on Effective Communications for Improved Safety, 42nd National Safety Congress.

answers that most meetings which fail do so because of poor planning and poor leadership. Our primary objective, then, in attempting to improve the quality of meetings is to train the leaders in improving their skills as well as their leadership techniques.

To begin with, an effective leader needs a basic philosophy in the virtues of democratic thinking. That is, he must have a faith or a belief that his associates know as much or more than he does about the topic at hand. He must be able to establish and maintain a climate that is conducive to the giving of good ideas, opinions, and experiences in the course of the meeting.

Generally speaking, he must have all of the talents and skills he normally expects to find in any good leader. Some of his qualifications are:

He must be pleasant, friendly, and interested in his subject.

He must be skilled in discussion leading.

He must be well informed on his subject.

He must be able to think rapidly and clearly.

He must possess analytical ability.

He must be impersonal and tolerant.

He must have a good sense of humor.

He must be industrious.

Certainly this is a big order, but it is an essential criteria to the conduct of effective meetings.

How to Lead a Conference

Procedure for conducting a meeting can easily be broken down into four major steps. They are:

1. Opening the meeting.
2. Presenting problems.
3. Conducting the discussion.
4. Summary.

In opening the meeting, the first responsibility is to put the group at ease. Why? To get a better flow of ideas. If we are successful in establishing a favorable climate initially, we will be able to put our listeners in a more relaxed frame of mind.

Next, we must state our objectives and explain what we intend to do. We can arouse interest if the people attending feel that the problem vitally affects them. It always helps to keep in mind their basic drives. In presenting or getting facts and ideas, we

Why Meetings Are Ineffective

- Lack of preliminary preparation.
- Poorly qualified leader.
- Group too large.
- Subject not of interest to all attending.
- Needs and objectives not clearly defined.
- The wrong people selected to attend meeting.

must keep in mind four key points.

1. To make sure the facts are clearly presented.
2. Stimulate and direct the discussion.
3. Keep the discussion moving on the subject.
4. Encourage the thinking of everyone in the group.

In the conduct of the discussion we are primarily concerned with weighing facts and ideas. Therefore, our real function revolves into helping the group weigh and analyze ideas, getting group acceptance or agreement on the idea or proposal, and summarizing periodically. Within the framework of the last two items discussed, it is usually advisable to employ the problem-solving pattern.

Simply stated, it might consist of three questions:

1. What is the problem?
2. What are the causes of the problem?
3. What are some possible solutions?
4. Which solution do you recommend?

If the meeting is to be effective, the participating group must experience a sense of accomplishment. The group can be given a sense of accomplishment by summing up the discussion, drawing conclusions, and/or making recommendations. At any rate, something specific or tangible must happen at the end of each meeting. We must agree on action to be taken, or the need for further committee investigation, or additional individual reports. Generally, it is a good idea to name the contributors of the key ideas to the discussion in the summary.

In working with groups it would be well to keep in mind the advice of Lao Tse, the Chinese philosopher, who said, of a good leader when the task is finished, they will say "we did this ourselves."

Happy (and Safe) Birthday!

When an employee at Mahwah plant of American Brakeshoe Company has a birthday he gets a greeting card signed by members of the plant safety committee. A series of cards with humorous safety messages has been designed and printed.

"Nicest thing that happened to me on my birthday," was the comment of one recipient.

Stop Athlete's Foot the Logical Way...

Build **RESISTANCE** to fungus attack!

The main cause of Athlete's Foot is the modern shoe (USPHS Bul. R-674). Shoes soften and devitalize the skin. Fungus spores—which are everywhere—thrive on this weak skin.

The best way to fight Athlete's Foot is to stop trying to kill the fungus. Concentrate instead on restoring the skin's resistance to fungus attack. (Report of 91 Skin Specialists, Archives of Dermatology and Syphilology, April, 1942.)

ONOX Skin-Toughener does that!

SAFE • SANITARY • EFFECTIVE
Nothing to get out of order



Fungus Spores Thrive on Shoe-Softened Skin



Onox Sponge Forces Onox Up Between Toes Where Most Needed

The Onox sponge forces Onox up between the toes where it is most needed. Daily use of an Onox saturated mat makes it safe to walk bare-foot anywhere. No danger of reinfection. Fungus spores can't grow in Onox and can't grow on a skin regularly toughened with Onox. Average cost is only 1c per man per week.

Workers prefer Onox to other methods. They know Onox clears and prevents Athlete's Foot the logical way. *

Used by over **70%** of the largest manufacturers

Remember . . .

Onox is a SKIN TOUGHENER. Instead of trying to kill the fungus, Onox restores the skin's natural resistance to fungus attack. Result—healthier feet, happier, more productive workers.

Try **ONOX** on a 60-day test **NOW!**

Order enough Onox and footmats for 60 days use. You pay nothing unless fully satisfied.

For full details, write



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Originators of the skin-toughening method of Athlete's Foot Prevention





Close-up of two-leg wire rope sling lifting heavy steel pipe. The wire rope, with a fiber core, is equipped with "JalKlamp" fittings. Terminal loops are held fast by a sleeve of non-corrosive aluminum alloy squeezed under high pressure. On this sling, terminal loops are equipped with a thimble and hook.

Beats Hand Splicing

IMPORTANT savings in time are made possible by a new wire rope pressing system that eliminates hand splicing. Using the new system, a worker can make as many as 20 or 30 splices in an hour, as compared to six or seven conventional splices per hour for a skilled worker using hand methods.

The new pressing system, announced recently by Jones & Laughlin Steel Corp., employs an aluminum alloy clamp or sleeve that is squeezed around the wire rope in a special 300-ton hydraulic press. Called "JalKlamp," the device is used as a mechanical method of splicing eyes, with or without thimbles, in the ends of wire rope. This "splice" gives 100 per cent of the breaking strength of the wire rope itself.

There is a big saving in the length of wire rope needed to make the splice. The company figures a saving of about 85 per cent of the rope length that would be necessary for a hand splice.

The clamp or sleeve in the new system consists of a piece of metal tubing that looks like a heavy bracelet, oval in cross section, with a place for the two ends of the wire rope cable to be clamped together. The sleeve material is a non-corrosive aluminum alloy that combines great strength with the

ability of cold flowing under pressure—at room temperature.

To make a splice, the wire rope is first measured, cut and inserted in the clamp. Then the clamp is crimped or squeezed around the wire.

A pressed joint is formed without damage to the individual wires. The clamp metal actually flows into the space between the wires in the strands and between the strands themselves. The clamp becomes a part of the rope.

This type of joint, makes the splice water tight. In hand splices,



Cutaway sections of terminal splice. Clamp metal has flowed into space between wires in strands and between strands, becoming part of the rope itself. Sleeve material is a non-corrosive aluminum alloy that combines strength with ability to be shaped cold. Metal is squeezed around rope at great pressure. Sample at left has fiber core; that at right has independent wire rope center.

there are always openings between the wires. Submerged in salt water, for instance, spliced wire rope is subjected to corrosion and rust. Those forces are far more easily resisted by this mechanical splice than they are by an ordinary tucked splice.

The system can be used with a full range of wire rope diameters—up to and including two inch.

Special 300-ton capacity motor-operated hydraulic presses are being leased by Jones & Laughlin to apply this type of terminal wire rope up to and including ¾-inch in diameter. With this unique press, any type of wire rope with any type of center, including fiber, can be squeezed with 100 per cent efficiency. A complete set of dies for different rope diameters goes with each press.

The clamps are made in Sweden under patents held by Gerhard Rohland of Goteburg, Sweden. The dies and special hydraulic presses are also of Swedish origin. Jones & Laughlin is the exclusive distributor in the United States.

Hawaii Trip Is Safety Prize

An all-expense paid vacation for two in Hawaii, or its equivalent in Powell River Company stock, plus \$100 in cash, is the attractive prize offered in the unique accident prevention contest now underway in Powell River, British Columbia.

The contest, which started August 1 and runs to December 15, is open to Powell River's 2,000 resident employees in departments which will have gone accident-free during the four and one half-month period.

Organization of the novel contest is being handled by the Union-Management Safety Committee, directed by Safety Supervisor Stuart Slade.

Pittsburgh COLOR DYNAMICS

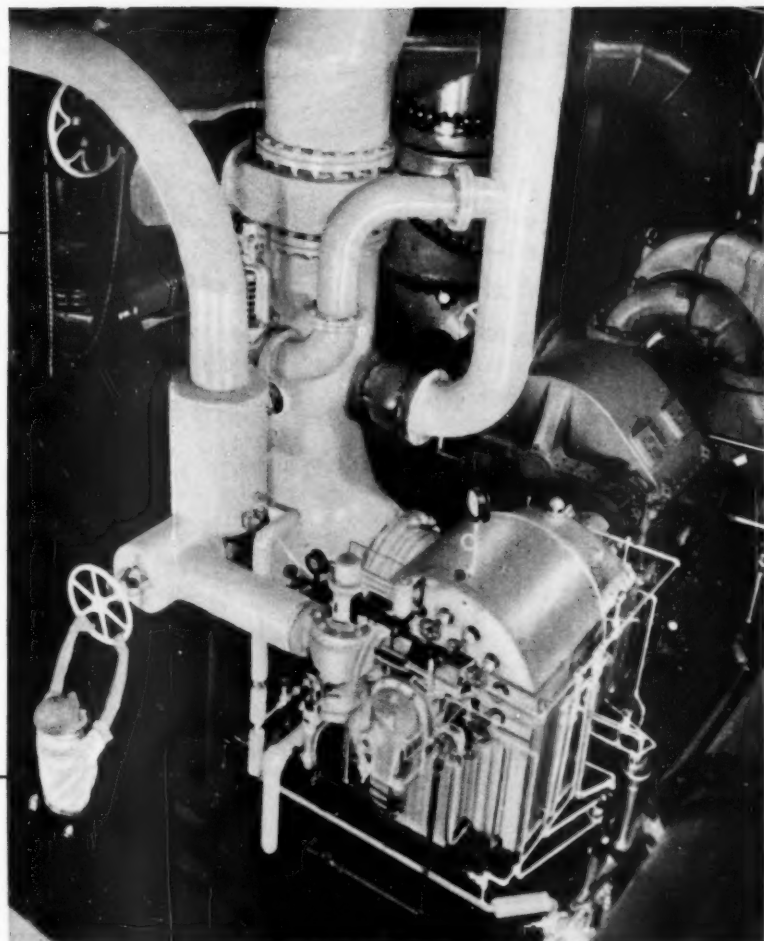
Helps Improve Safety Record 400% in Steel Mill!

Putting color to work in Jones & Laughlin's cold finishing department increases safety record from 1,027,000 man-hours without time-loss accidents to an all-time high of 4,858,579!

By MAKING workers more safety conscious, focusing their attention and minimizing fatigue, Pittsburgh COLOR DYNAMICS has helped to lower the accident rate phenomenally in the cold finishing department of the Pittsburgh Works of the Jones & Laughlin Steel Corporation.

During the time this department was painted according to ordinary shop practice, its best safety record was 1,027,000 man-hours without a lost-time accident. Since being repainted according to COLOR DYNAMICS, its safety record has zoomed to an all-time high of 4,858,579 hours. *An increase in safety of nearly 400%!*

"Naturally, we are very pleased with such improvement in our workers' safety," comments Superintendent Joe Seyler, of the mill's cold finishing department. "But we believe



Forests of huge pipes in pump and boiler houses of J & L's Pittsburgh Works are easier to identify since pump lines were painted in dark green with black bands, and vacuum lines in yellow with bands of green and white.

that this is just one of many benefits that have resulted from putting color to work the COLOR DYNAMICS way. By using eye-rest colors on stationary or non-critical parts of machines we have made these areas seem to recede. By contrast, moving or critical parts have been made to stand out. Our operators see their jobs better. With less eye strain there is less fatigue, and lessened fatigue results in more and better productivity.

"Eye-rest and morale-building colors on walls and ceilings have

provided more pleasing surroundings that have enhanced the morale of our workers. They take pride in keeping their work areas cleaner and more orderly, thus simplifying housekeeping. And we get all these benefits without paying any more than conventional maintenance painting has cost us."

Why not test the practical value of COLOR DYNAMICS in your plant? Paint a machine—or a department or two—and see the difference it makes in efficiency, morale and safety.

Get a **FREE ENGINEERED COLOR STUDY** of Your Plant!

● Send for our free book which explains simply and clearly what COLOR DYNAMICS is and presents scores of practical suggestions on how to apply its principles. Better still, call your

nearest Pittsburgh Plate Glass Company branch and ask to have a representative give you a comprehensive engineered color study of your plant without cost or obligation. Or mail coupon.



PITTSBURGH PAINTS

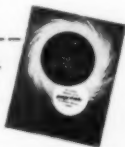
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Workers respond to safe conditions when guided by proper warnings and instructions. Keep telling them—with Stonehouse Signs that inform them of hazards and dangers. This is true accident prevention.

Write for our complete Catalog—
64 pages, in full color. It's free.

The logo for Stonehouse SIGN features a circular icon with a handprint inside, followed by the word "Stonehouse" in a large, elegant script font, and the word "SIGN" in a smaller, bold, sans-serif font below it.

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"Signs Since 1863"



ACCIDENT PREVENTION • *steel* SIGNS IN STANDARD COLORS AND DESIGNS

Retires from NBS

RAYMOND L. SANFORD, assistant chief of the Electricity and Electronics Division of the National Bureau of Standards and Chief of the Magnetic Measurements Section has retired from the Bureau after more than 44 years of service. Mr. Sanford is known throughout the world for his work in magnetic measurements.

He has contributed inventions, researches, and publications on the application of magnetic measurements to the nondestructive testing of many types of ferrous materials ranging from elevator cables to prison bars.

Mr. Sanford joined NBS in 1910 as a member of the Magnetic Measurements Section. Eight years later he was appointed chief of the section, and was appointed Assistant Division Chief in 1950. In 1920 he was elected secretary of ASTM Committee A-6 on Magnetic Properties where he served until 1948 when he was elected chairman of the Committee. He served as chairman until June 1954.

Jet Firm Tells of Flight, Anti-Noise Programs

IN A UNIQUE APPROACH to a new and increasing industrial problem, Republic Aviation Corp. in a "Report to Our Neighbors" faced up to the fact that jet airplane noise is a real irritant and explained what the company is doing to insure the safety of surrounding communities and abate the noise.

Included in the program are:

1. A ban on all jet plane test flights from the Republic field after nightfall.
2. A ban on all ground tests of plane engines after 10 p.m.
3. A flight traffic pattern which will now take planes away from many nearby communities and get them over Long Island Sound or the Atlantic Ocean as quickly as possible.

The noise abatement program is Republic's approach to a jet age problem now under study throughout the aviation industry. The program is explained in a two-page pamphlet entitled, "Friendly Noise or Enemy . . ." Copies are being distributed to

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ALGRIP

still remains Non-Slip!



It occurs every day. ALGRIP Abrasive Rolled Steel Floor Plate is installed—then insurance premiums tumble—slipping accidents stop.

The reason is tough steel floor plate impregnated uniformly with abrasive "grinding wheel" grain. Result: A truly non-skid surface that stays slip-proof, because wear only exposes new particles . . . a "safety extra" offered only by ALGRIP.

If your accident insurance premiums are too high, let ALGRIP bring them down. Mail this coupon today for the complete ALGRIP story. There's no cost or obligation.

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Note depth and uniformity of abrasive grain.



A.W. ALGRIP Abrasive Rolled Steel Floor Plate

ALAN WOOD STEEL COMPANY
CONSHOHOCKEN, PA.

Please send Booklet AL-12 on how ALGRIP can cut costs and accidents:

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Never a slip on ice or snow when you've spread ZORBALL!

THIS wise driver carries a bag of Wyandotte ZORBALL in his truck all winter long. If his truck slips on ice or snow, a sprinkling of ZORBALL gives his wheels instant traction.

Whenever trucks are loaded or unloaded on an icy spot, or where grease or oil has been spilled, ZORBALL should be spread over the area. Danger of slipping, to both workers and trucks, is eliminated.

Fact is, Wyandotte ZORBALL can be

used effectively and easily wherever a danger area exists, indoors and out, on any type surface. It's the all-purpose floor absorbent that won't mud, cake or dust. And it absorbs saturation quantities of any liquid—paint, oil, grease, chemicals—yet refuses to support combustion. Cost?—the lowest use-cost of any floor absorbent known!

Try a free sample of skidproof, fire-proof ZORBALL. Mail coupon today, or call your Wyandotte representative or jobber.



Wyandotte CHEMICALS

Helpful service representatives in 138 cities in the U.S. and Canada

Largest manufacturers of specialized cleaning products for business and industry

MAIL COUPON TODAY FOR FREE SAMPLE

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Send free sample of ZORBALL ☐ Have a representative call ☐

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Firm

Address

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government officials, schools and business and civic organizations, and to Republic's 22,000 employees, many of whom are directly affected by jet engine noise over their homes.

The company explains in its report that because jet plane engines are four times as powerful as those used in World War II, it is difficult to cut down on the noise without cutting down on engine power.

"Until preventative devices are perfected there will be noise if the United States is to be secure against enemy attack," the report adds.

The report also points to Republic's safety record.

"Republic's test pilots have made 120,000 take-offs and landings and have flown 50,000 hours in the last 10 years without damage to the person or property of any neighbor. This record is the result of continuous careful planning and skillful flying."

The report explains how O. P. Hass, Republic's director of flight operations, and Major C. S. Turner, Air Force flight director at the Thunderstreak plant, have devised airport traffic and flight-test procedures to keep Thunderstreaks away from many inhabited areas.

While most flight patterns at U.S. airports call for left turns, the pamphlet says Republic has instituted a flying procedure that calls for right turns on take-offs. This, the report says, enables company and Air Force pilots to avoid neighboring communities and lessen the noise.

"Noisy airplanes are not dangerous airplanes," the pamphlet says. "More noise means more power and that, in turn, means less chance of a plane falling."

Fourteen Railroads Win Harriman Medals

RAILROADS which led the industry in accident prevention were presented with the E. H. Harriman Memorial Awards at a dinner held at the Hotel Roosevelt, New York City, Sept. 16.

At this dinner the Arthur Williams Memorial Award of the American Museum of Safety for outstanding individual contribu-

tion to safety was presented to Sidney J. Williams, assistant to the president, National Safety Council.

The annual awards, established in 1913 in memory of E. H. Harri- man, railroad pioneer, were pre- sented by the Museum to 14 rail- roads. A gold medal went to each of the three railroads which in its size group achieved the best safety record in 1953.

Among railroads in Group A, the medal was awarded the Great Northern Railway, with head- quarters in St. Paul, Minn. In Group B, the medal winner was the Duluth, Missabe & Iron Range Railroad, Duluth, Minn., and in Group C the honor went to the Texas & Northern Railway, Dal- las.

Commenting on the awards, James G. Lyne, of New York, editor of *Railway Age* and chair- man of the award committee, said that, overall, the industry in 1953 about equalled the record safety mark set in 1952. While passenger safety fell somewhat short of the excellent performance of the pre- vious year, the railroads in 1953 reached an all-time peak in em- ployee safety.

Certificates of commendation were presented to the following railroads:

EASTERN DISTRICT:

Group A—Reading Company.

Group B—Pennsylvania-Read- ing Seashore Lines.

Group C—Rutland Railway.

WESTERN DISTRICT:

Group A—Chicago, Burlington & Quincy Railroad.

Group B—Missouri-Kansas- Texas Lines.

Group C—Texas Mexican Rail- way.

SOUTHERN DISTRICT:

Group A—Chesapeake & Ohio Railway.

Group B—Nashville, Chatta- nooga & St. Louis Railway.

Group C—Atlantic and Dan- ville Railway.

Certificates of commendation were also awarded to the follow- ing switching and terminal com- panies:

Group ST-1—Baltimore & Ohio Chicago Terminal Railroad.

Group ST-2—Conemaugh & Black Lick Railroad.

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Assured
**PROTECTION
PERFORMANCE**

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DRY CHEMICAL EXTINGUISHERS

Reach for Fyr-Fyter Dry Chemical Extinguishers . . . with abso-
lute assurance of protection performance! They're engineered
to PERFORM with "Sealed-In" power that's harnessed in per-
fected air-tight, water-tight sealing to provide fast, positive,
fire-fighting action . . . without fail! The simple, squeeze-grip
nozzle control releases a thrust of force that's SURE . . . expelling
a long-range, heat-shielding, flame-smothering stream of free-
flowing chemical powder. On contact, the flame-smothering
powder puts out fires in gasoline, petroleum products, paint,
varnish, lacquer, turpentine, alcohol . . . all flammable liquids,
gas, butane, propane, chemical and electrical fires! Stainless
steel tank and aluminum castings provide extra strength for
more rugged use, and less weight for easier handling.

For assured protection performance . . . be SURE with an
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201-NE Plier



5233 Klein-Kord Safety Strap
Also Available in Nylon



5249 Klein-Line Tool Belt



1945 ADJ Climber



1628-3BH Klein Chicago Grip

"Since 1857"

If you've ever been up on a pole fifty feet off the ground—you *know* why the lineman prefers equipment bearing the familiar Klein trademark. For instance—

Klein Climbers take him up and down in safety—provide sure footing while he works.

Klein-Kord Safety Straps provide maximum safety on every job—the red center unmistakably signals when the strap should be replaced.

Klein-Line Tool Belts give the safety, comfort and convenience necessary for fast, efficient work.

Klein Pliers help linemen to do any wiring job better and quicker.

Yes, Kleins are the year-round favorites for safety and service—made by a company with a reputation for quality "Since 1857."

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Foreign Distributor:
International Standard Electric Corp., New York

If you have not received your copy of the Klein Pocket Tool Guide, write for one. It will be sent to you without obligation.



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Established 1857 Chicago, Ill., U.S.A.

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Acacia Fraternity Honors Ned H. Dearborn

ACACIA National Fraternity honored Ned H. Dearborn, president of the National Safety Council, by presenting him with the Acacia Award of Merit at the fraternity's golden anniversary conclave at the University of Michigan, Ann Arbor, Mich., August 25.



A total of 15 awards were made by Acacia this year to individuals who made outstanding contributions to the service of the fraternity, or who by their achievements reflect great honor on the fraternity by their contributions in the field of human service. Subsequently, not more than five awards will be made annually.

Lloyd H. Ruppenthal, president of Acacia's National Council, made the award presentations. United States Senator Francis H. Case, of South Dakota, addressed the Conclave banquet.

Mr. Dearborn received a medalion emblematic of the award, and an engraved shingle for framing. He became a member of Acacia at Columbia University in 1932.

Medical-Legal Problems On Conference Program

POTENTIAL occupational health hazards, as well as major health problems now facing the manufacturers, will be taken up at the 19th Annual Meeting of Industrial Hygiene Foundation to be held at Mellon Institute, Pittsburgh, Pa., November 17 and 18.

Some 800 leaders in the industries and professions from all

parts of the United States will participate in Medical, Engineering, Chemical-Toxicological, Legal and Joint Medical-Legal Conferences on the first day and in the Main Meeting, designed particularly for management, on the 18th. They will represent the 360 member companies of the Foundation.

Included on the program are papers on hazards of radioactive materials, reevaluation of the physical examination, and the problem of overweight in industry.

The Engineering Conference will bring to the attention of plant engineers new developments and ideas on engineering measures that may have effects on the working environment. Papers will be presented on physiochemical dust suppression in final products; the role of oxidation catalysts in air pollution control; outdoor ventilation for particular industries by open plant construction; recent developments in noise control; and specific instances of measures taken to control temperature, ventilation, and noise.

The Chemical-Toxicological Conference will discuss relationships among environmental health and new processes and materials which have recently come into use in industry. Among the subjects to be considered are the vinyl plastics and resins bonded with glass fibers, vanadium and vanadium compounds, and newer techniques of welding.

Legal aspects of industrial health problems will be taken up at the Legal Conference. Topics include a legislative review of workmen's compensation, a discussion of the medical and legal aspects of the causal relationship between occupational exposure and the incidence of compensable dermatitis, and papers on current developments in compensation for impairment of hearing and on the legal responsibility of employers for the prevention of occupational injuries.

Wonder if the fellow who keeps his girl's picture in the back of his watch is doing so because he thinks she will learn to love him in time?



Your workers' hands face longer odds daily

To leave your men's hands unguarded is as serious a mistake as turning an alligator loose on your plant floor. Just check the record. Hand injuries are the most frequently reported, and result in the greatest production losses, the highest insurance premiums—costly, no matter how you look at it.

More and more safety men have learned that the best ounce of protection they can buy is Jomac® Work Gloves. The tough, twisted-loop construction of Jomacs gives your workers the resiliency and cushioning effect their hands require. Jomacs are sure protection against the hand hazards that threaten your men every day—sharp edges, rough surfaces, bruising blows.

Jomacs are an excellent buy for another reason: they actually outwear ordinary work gloves by 900%. They can be cleaned and reconditioned time after time, and this longer wear means less inventory on your stockroom shelf.



Jomac Work Gloves keep safety records up, insurance rates down. Describe your operations—temperature conditions, etc. We'll gladly recommend an economical Jomac Work Glove and send you a free sample pair. Jomac Inc., Department D, Philadelphia 38, Pennsylvania.

It pays to keep JOMACS on hand

JOMAC

Industrial Work Gloves

Outwear ordinary work gloves by 900%

PLANTS IN PHILADELPHIA, PA., AND WARSAW, IND.

Overhead
Lights...

Servisafe
BRACKET UNITS
FOR WALL AND WOOD POLE MOUNTINGS

... serviced
from the
ground

NOW... luminaires mounted on walls and wood poles can be serviced in minimum time with complete safety. "Servisafe" Units feature a disconnecting and lowering mechanism that permits workmen to lower the lights for servicing and to reposition them quickly and easily. All operations are accomplished from the ground. All climbing and electrical hazards are eliminated.

Supplied in ready-to-install packages*, "Servisafe" Bracket Units have an unlimited range of application. They permit all-weather accessibility to luminaires... mounting heights up to 60 feet above ground level... fast, efficient, low cost maintenance.

Designed for new installations and the rapid conversion of existing facilities, "Servisafe" Bracket Units can be used with all standard pendant and flood type lighting fixtures.

* Luminaires are not included in Bracket Unit packages.

FOR ADDITIONAL INFORMATION,
WRITE FOR BULLETIN WPH-54.

8011-TE

THE THOMPSON ELECTRIC CO.

1199 POWER AVENUE

CLEVELAND 14, OHIO

Army Cuts Overseas Fire Losses

Heidelberg, Sept. 24 (PIO)—USAREUR fire loss statistics for the fiscal year ending in July 1954, indicate that Headquarters Area Command ranked third in fire prevention following the smaller principalities of Bremerhaven and Berlin, which took first and second place, respectively.

HACom thus outranked SACom, WACom, NACom, and COMZ by holding the number of fires to fifteen, with a dollar loss of \$6,997.63. Total fire losses throughout USAREUR amounted to \$2,490,400.54. The primary cause of fire in HACom was electric wiring and appliances; other major hazards were stoves, boilers, cigarettes and matches.

Although this marks only the third year that Fire Prevention Week has been celebrated in USAREUR, fire losses have been steadily reduced. While there is always the possibility of a major holocaust, increased public awareness, cooperation, and action can hold such dangers to a minimum. Fire losses in USAREUR were reduced by more than one million dollars last year compared to the year before. To assure quick action against any outbreak of fire military authorities have set up agreements with German municipal fire companies to combine forces whenever necessary.

Getting Management's Ear

—From page 76

of preventing accidents. With compensation benefits and medical rates increasing each year, accident costs are becoming an ever increasingly important item.

4. Invite participation by top management in program.

One of the most effective parts of our own safety program was started when we first got it underway. Every month, our executive vice-president, Mr. J. E. Trainer, writes a personal letter to our plant and division heads commenting on their safety records for the previous month. He praises those who are doing a good job and encourages the

others to do better. Plants whose records continue to be poor are treated accordingly.

The safety engineer can help top management in such an endeavor by furnishing them the necessary facts and figures for such letters. In most cases, this information can be attached to the letter from the vice-president. I need not say how effective such a procedure is, since it indicates that the top production executive is familiar with the safety progress being made in each plant and will not permit any plant to "lay down" in its safety efforts.

I would strongly recommend that these letters go out from the top production executive rather than from a staff executive. After all, it is only natural that we pay most attention to letters from the "boss."

The top management man in the plant should be encouraged to attend safety meetings. In a large multi-plant organization it would be impossible for the vice-president in charge of production to do this. In this case, the plant manager of each individual plant should attend the meetings even though only for a few minutes.

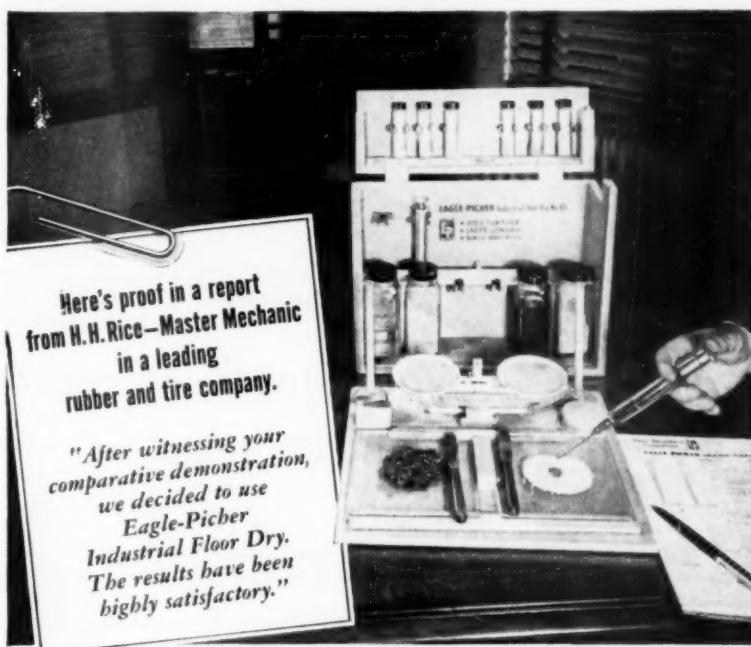
We have been very fortunate in this respect and have some of our plant managers attend as many as eight meetings every month when it is necessary to have this many meetings to cover all members of supervision. If the "boss" comes to the meeting, its importance in the minds of supervision is greatly enhanced.

5. Encourage top management to participate in safety council work.

This might mean serving on committees of local, state, or national safety groups or giving a speech at a safety conference. This can be very effective in increasing the interest of management in safety and it will also show them what other companies are doing in accident prevention.

In addition, participation at the National Safety Congress or the President's Conference on Occupational Safety will indicate to management the importance of accident prevention in our national economy. All in all, it will make them more safety minded

There's a big difference in floor absorbents



Here's proof in a report
from H. H. Rice—Master Mechanic
in a leading
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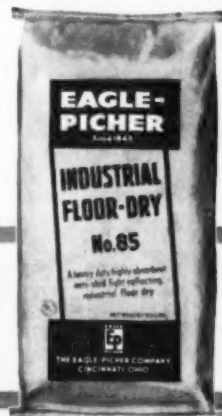
"After witnessing your
comparative demonstration,
we decided to use
Eagle-Picher
Industrial Floor Dry.
The results have been
highly satisfactory."

You, too, can witness the difference in floor absorbents! With his portable laboratory, your Eagle-Picher man will analyze your floor absorbent *right in your office*. You may actually conduct the test yourself! Without obligation, of course.

Here's what the test shows—

- The amount of oil and water absorbed for given bulk.
- The cost of your absorbent in terms of absorption and coverage.
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You'll see that Eagle-Picher Floor-Dry is insoluble, chemically inert and non-combustible . . . that it combines light weight for exceptional coverage with light color for brighter, safer working areas. Write today for the full story.



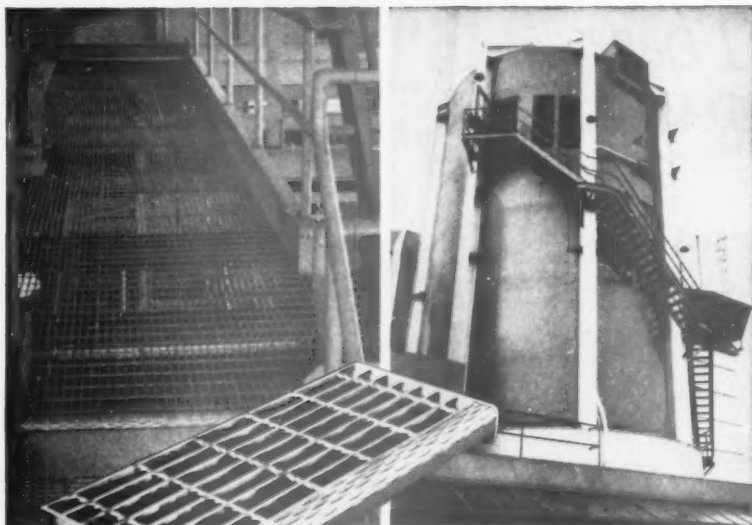
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Since 1843

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Stair treads by BLAW-KNOX

you can easily make every step a safe step

Indoor or outdoor, you can rely on Blaw-Knox Stair Treads to provide the safety you want in your plant.

Designed for tremendous strength against impact, these stair treads are made with twisted cross bars and rolled diamond checkered plate nosing—as illustrated.

But, when desired, you can get treads with a twisted cross bar nosing or an abrasive nosing. And for specially slippery conditions we can supply you with serrated cross bar treads.

Just tell us what your application is and we'll offer our recommendations as to the best type of tread for your job.

Only Blaw-Knox Electroforged®

Steel Grating and Stair Treads

—have these five exclusive features:



1. rigid one-piece construction—easy to install
2. all surfaces accessible—easy to paint
3. no sharp corners to clog—self-cleaning
4. maximum open area—for light and ventilation
5. non-slip twisted crossbar—safe footing

A short note will bring you a copy of new Bulletin No. 2365-R
—a dimensional sketch will bring you a quotation.

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GRATING APPLICATIONS: floors • platforms • walkways • catwalks • stair treads • fan guards • shelving • and many other uses, both outdoors and indoors, for versatile steel grating.

and help us in our program. It is necessary in some cases for us to do quite a lot of work in helping in this participation but such work will be well worth-while in the long run.

6. Bring to top management for action only important questions of policy.

Any safety engineer should be willing to accept responsibility for his actions in putting on his program. He should be sure that what he is doing is right and then should proceed accordingly. He should not bother top management with minor details. It is also important that he "get along" with members of management of the various production and service departments. Top management is always busy with the many problems of the modern day business and doesn't care to be bothered with trivial matters or with controversies that should be settled by the parties themselves.

If the safety man can't get along with personnel of the production and engineering departments he is not apt to be the safety man very long. This does not mean letting these departments push him around but it does mean exercising tact and good human relations practices in dealing with these individuals.

7. Work hard to make your program work.

Nothing pleases a top executive more than to hear complimentary remarks made about his company or plant or to get an award for some achievement of his organization. A safety award for a plant enhances the position of the safety man in the eyes of not only the top executive but also of the other members of management and in addition gives a boost to his program. "Nothing succeeds like success." To get such recognition, the safety man must make his program work. In the long run, the stature of the safety man in the eyes of his management and the backing he will receive from them will depend on whether he has been able to reduce the number and severity of accidents and in turn accident costs.

Wheel Chairs Are Vehicles

A wheel chair is not power driven, but like other items of equipment it should have regular inspection. Each chair should be checked by the nurse before use and should not be used if defective. It should also be inspected regularly by the hospital maintenance department.

Wheels should be checked to make sure they are on securely and turn easily. Leg rest bearings should be checked. The stops under the leg rest and under the back to keep the chair from tipping should be checked to make sure they are secure and in place.

If the wheel chair is of the folding type, hinges and locks should also be examined.

Los Angeles Mayor Enrolls 6000th "Wise Owl"

AMERICA'S 6,000th "Wise Owl" was formally enrolled in the national "sight saved" organization today by Mayor Norris Poulson of Los Angeles.

Mayor Poulson presented the certificate of membership to Charles E. Happe, North American Aviation employee, who became eligible for the exclusive club when a piece of metal from a broken drill flew toward his eye, striking the lens of his safety glasses but leaving his eyesight undamaged.

Ceremonies enrolling Happe were conducted in the Mayor's office at City Hall with Richard Wilkins, chief safety engineer at North American and Jack M. White, California state chairman for the National Society for the Prevention of Blindness also participating.

Wise Owl Club membership is limited to those who save themselves from certain blindness by wearing proper eye protection when an accident occurs. Under the sponsorship of the National Society for the Prevention of Blindness, the club has grown rapidly since its founding in 1947; more than 1,100,000 workers are now employed in plants which utilize the club as a safety measure.

MORE STEEL PLANTS ARE MODERNIZING WITH SANITARY WASHING FACILITIES



Portion of one of Inland Steel's washrooms with Bradley Washfountains and Multi-Stall Showers.

LOWER INSTALLATION COST, FEWER PIPING CONNECTIONS —LONG-LIFE FIXTURES

Each Bradley Washfountain accommodates up to 10 men simultaneously, yet only one hot water, one cold and one drain connection are required.

Three piping connections are required to serve five stalls of the Bradley Multi-Stall Shower.

Connections can be made from above as shown or from underneath.

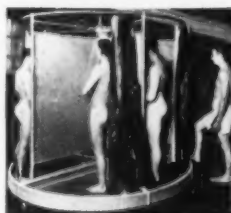
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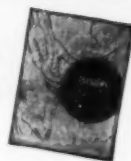
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Atomic Operations Prove Safer Than Home

General Electric Company workers at the huge Hanford Atomic Products Operation, Richland, Wash., are more than 10 times safer at work than the average American is at home, judging by a new safety record set there.

Hanford, which produces plutonium for atomic bombs, is operated by G-E for the Atomic Energy Commission. Louis E. Newman, manager of G-E health and safety services, said that the 9,000 employees there recently completed 8,750,000 man-hours without a disabling injury. He described this as "the finest safety record in G.E.'s 75-year history."

For a factory employing 100 persons to equal the Hanford record, it would have to go 43 years without a disabling injury.

The best record ever achieved by a G-E operation, other than at Hanford, Newman said, was at the East Boston Lamp Works, where employees worked about 7,500,000 accident-free hours.

The Hanford achievement was attributed to three basic policies:

1. Each employee is given individual job instructions on safety.
2. Safety rules, once made, are strictly enforced.
3. Each supervisor is held accountable for the safety of his workers.

Statement of the Ownership, Management, and Circulation required by the Act of Congress of August 24, 1912, as amended by the Act of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233).

Of NATIONAL SAFETY NEWS, published monthly at Chicago, Illinois, for October 1, 1953.

1. The names and addresses of the publisher, editor, managing editor and business managers are:

Publisher—National Safety Council, Inc., 425 N. Michigan Ave., Chicago 11.
Editor—Carman Fish, Chicago.

Managing Editor—Norval Burch, Chicago.

Business Manager—George E. Burns, Chicago.

2. The owner is: National Safety Council, Inc., 425 N. Michigan Ave., Chicago 11.

(Note: The National Safety Council is a non-profit, non-commercial association chartered as a Federal corporation (Act S. 1105, Public Law 259,

Chapter 429, 83rd Congress, First Session).

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show that the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semi-weekly, and tri-weekly papers only.)

GEORGE E. BURNS, Business Manager

Sworn to and subscribed before me this 22nd day of September, 1954.

BERNADETTE A. LANOUILLE
Notary Public

(My commission expires June 15, 1957)



ONLY GRA-LITE GARMENTS BRING YOU ARMORED SEAMS

Before the development of the armoring process, seams were the most vulnerable part of protective garments used on chemical hazards. Corrosive chemicals ate away threads, seeped through needle holes or ran through minute seam tears. Repairs were time-consuming . . . garment life was shortened . . . and minor, unexplained injuries were frequent.

Armoring* reversed these facts almost overnight. In this process Gra-lite is fused directly over and through all seams. Instead of the weakest part of the garment, armoring* has made seams the strongest and most durable part. This extra-thick blanket of rugged Gra-lite over all seams spells extra safety and longer garment life.

*Armoring is an exclusive StaSafe fusing process. It is NOT a coating. It will NOT be destroyed by ordinary wear, laundering or normal chemical exposure.

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597 BROADWAY 835 EAST 152nd ST. 9752 CRENSHAW BLVD.



Write in today for a sample Gra-lite swatch having an armored seam. Test its strength, durability and chemical resistance . . .

Heard at the Congress

—From page 39

being made slowly and evenly by straightening the legs.

However, not all backaches can be eliminated by assuming proper posture alone. Flexibility of muscles and ligaments also have a great deal to do with it. The tendency to tighten up increases with age and is hastened by lack of exercise.

Athletes, dancers, gymnasts, soldiers and even cats all know they must counteract the stiffening by means of stretching.

You're all aware of the cat who stretches routinely at the end of each nap so it will have the agility to catch the first bird it has the opportunity to spring at.

—John T. King, Union Oil Co. (Petroleum)

Emergency Planning

Although emergency planning is usually thought of only as a wartime problem, disaster can strike any time.

A peacetime disaster plan is an

excellent start on a plan for war-time. The major difference is that a war disaster plan must be based on the assumption that there will be at least partial initial success by the enemy, with destruction, disruption and chaos in our industrial organizations.

Such assumptions are not fanciful—they're realistic. Some planes will get through.

Some sabotage will be successful and espionage agents will act. An enemy attack would include the use of the atomic or H-bomb with an air burst. Large cities where industry is concentrated are sure to be among the first targets.

These are the assumptions on which Koppers Co. has put into effect a phased program of protection.

The first phase consists of training personnel in panic abatement, microfilming essential records and data, emergency reorganization and operating procedures, and a management succession plan.

Plans in the event phase two is needed include fire protection

facilities, stockpiling of replacement materials and an alternate communication system. In this phase, procedures are planned only, and the plans are maintained in readiness for quick use.

The third and final phase of the plan deals with procedures in the event of a declaration of war by the U. S.

A high industrial security standard at the outbreak of a war may be a decisive factor in winning a war. Safeguarding private industries is primarily the responsibility of local and state governments and finally, the federal government.

—John H. Redmond, Koppers Co. (*Are You Prepared for Emergencies?*)

Contests Do Help

While prize competitions are not a cure-all for accident prevention, they sure can stimulate your safety program.

Types of contests are safety slogan writing, highest percentage



TOUGH!

Here are shoes that are built throughout to take punishment, built especially to stand up under rugged working conditions of all kinds. They're made with the strongest steel toe to give your workers dependable protection. Yet they provide real comfort and are good looking, too. And they cost less than any shoe of comparable quality! You can choose from many styles of "work" and "dress" shoes in the complete Safety First line. Write today for free illustrated catalog.

Heavy duty style 3978 with oil-resistant cord soles

THE ORIGINAL STEEL-TOE SAFETY SHOES

SAFETY FIRST SHOE COMPANY

27 WATER STREET HOLLISTON 5, MASS.

THE PIONEER MANUFACTURERS OF SAFETY SHOES

of safety shoe sales, departmental competitions for completion of the month without a lost-time injury, and semi-annual plant-wide contests where points are earned for various safety accomplishments.

Results of this latter type of contest in one of our plants have been amazing. Safety shoe sales increased 39 per cent, safety glasses 41 per cent, unsafe conditions corrected 20 per cent, safety meeting attendance is almost perfect and frequency rate was reduced 50 per cent.

—M. R. Batche, *Xylos Rubber Co. (Rubber)*

Using Visual Aids

Visual aids can only supplement training programs. Instruction through direct personal contact is still the primary method of training employees in industrial safety. Only after ground work of personal instruction is laid, will visual aids begin to take on meaning and bring desired action.

First, visual aids help to create interest in a subject. Second, they

help to make a subject meaningful. Third, experience has shown that information presented visually is often retained more fully than that presented verbally.

—Donald P. Smith, *Kottcamp & Young (Effective Communication)*

Working with the A-Bomb

Everybody has heard or read about being safe "from" an atomic bomb explosion, but how about being safe "with" it?

Planning for test nuclear explosions in Nevada and in the Pacific requires exacting safety considerations for two reasons—the tremendous and different kinds of energies released, and the loss of values and effort that would result if something unforeseen caused an uncompleted or unsuccessful experiment.

As many planned operations as possible are subject to rehearsals or "dry runs" in the home laboratories as well as in the forward area. Essentially, every significant operation where time is important is practiced beforehand.

The first thing considered is weather conditions at the time of and immediately following a detonation. Even remote possibilities like typhoons, tidal waves, enemy action and unpredicted weather problems must be prepared for.

In the Pacific "sight-mustering" is used to make sure that personnel is in safe position when detonation is made. In Nevada, the technique is to close off the danger area many hours before the shot and check personnel in and out of it.

Detailed procedures for disarming gadgets of detonation must be previously worked out and available, should some unforeseen event require postponement.

—Roy Reider, *Los Alamos Scientific Laboratory (Nuclear Developments)*

More Hazards Ahead

The tremendous past growth and probable future expansion of the chemical industry poses a problem of safe storage of flammable liquids.

Chemical storage has grown

STASAFE windsocks give you

WINTER WARMTH AT A NEW LOW COST



You save with Windsock winter hard hat liners! They cost as little as one-tenth the price of some liners . . . and they eliminate on-the-job time wasted installing and adjusting permanent liners.

You slip on a Windsock as easily as any other snug-fitting knit cap. Pull it down over your ears for added warmth . . . put on your hard hat and you're ready for work. There's NO installation. NO adjustments . . . the weave expands for all head sizes.

Windsocks cost only pennies . . . in fact, the price is so low you may discard them when dirty and still be dollars ahead.

**Write in today for a free Windsock.
Try it on and feel its light, snug warmth.**

STANDARD SAFETY EQUIPMENT COMPANY
232 WEST ONTARIO ST. CHICAGO 10, ILLINOIS
NEWARK 4, N. J. CLEVELAND 10, OHIO LOS ANGELES 16, CAL.
597 BROADWAY 855 EAST 152nd ST. 2952 CRENSHAW BLVD.

400 per cent since 1939, and petroleum has increased 90 per cent in this same period.

The total volume of flammable liquids will increase another 400 per cent by the year 1957, and the problem is made greater because of the large stocks of reserves which must be held for emergencies and peak sale demand periods.

Problems involved in safe handling and storage of flammable liquids have been pushed into the background in the rush to increase production.

—J. J. Duggan, Carbide & Carbon Chemicals Corp. (Chemical)

What People Want

Human beings are all as lazy as they dare be and get by. That is one of four basic premises which lead to a better understanding of human nature.

People will always act like people. You don't criticize gold because it's yellow or water because it's wet. You learn to use them within their limitations.

These beliefs are part of the company's program for supervisory personnel training.

Understanding people involves knowing the three things that 85 per cent of them want. They want to feel important, to be appreciated, and to be liked by others.

W. F. Leonard, Southland Corp. (Aeronautical)

Safer Handling

Accidents, per ton of material handled, are much less frequent today with mechanical handling than in the past when material was moved by hand. The following advances have been made by manufacturers in truck-type material handling equipment: The fire hazard has been reduced, controls have been standardized, capacity ratings have been clarified, guards protect the operator against mechanism and overturns, visibility has been improved, and machines have greater stability.

—Charles S. Schroeder, Yale & Towne Research Center. (Handling Materials)

A Way of Life

Without safety as a way of life, there isn't much point to bread as the staff of life.

Manufacture of cakes, cookies, crackers, pretzels, bread and other products is only the beginning of the job.

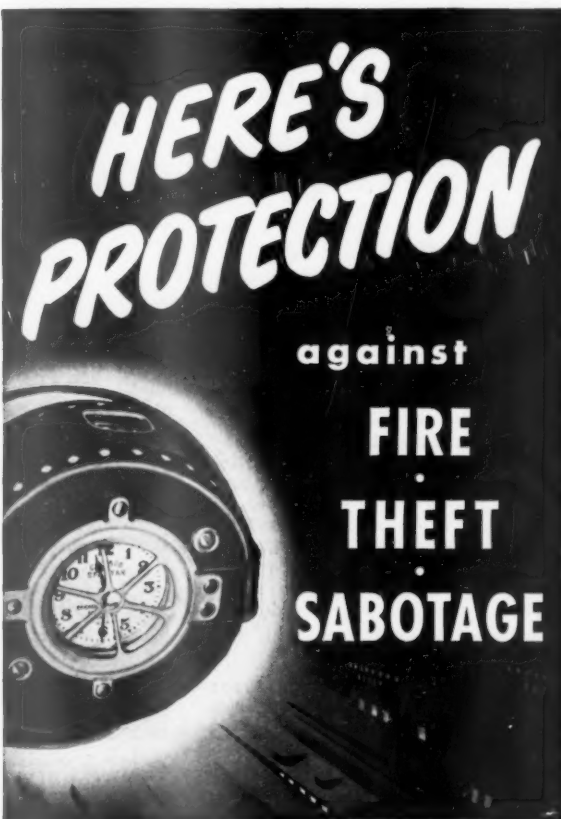
Distribution of our products involves operation of 2,500 trucks, 35 trailers and approximately 3,000 passenger cars over 40 million miles every year in the U. S. alone.

Above all else we strive to develop an attitude, a frame of mind, a philosophy of understanding that safety is a way of life, not to be applied on the job alone, but everywhere, always, so long as we may live.

—Edward Z. Banka, National Biscuit Co. (Food)

The Alternative

After over 40 years of accident prevention effort, only 10 per cent of employed personnel in this country is being reached with



**HERE'S
PROTECTION**

**against
FIRE
THEFT
SABOTAGE**

CHICAGO Watchclock System

"The first... and still the first."
LOWERS YOUR INSURANCE RATES!



It keeps track of your watchman's tracks—so accurately and positively that the CHICAGO WATCHCLOCK System is approved by THE UNDERWRITERS' LABORATORIES and by THE FACTORY MUTUALS LABORATORIES. Users earn reduced insurance rates. Thus the CHICAGO WATCHCLOCK System quickly returns its small cost to you.

Write for FREE

new folder that completely describes this simple, low-cost, tamper-proof system of extra protection to property. Write for it NOW!



CHICAGO WATCHCLOCK
DIV. GREAT LAKES INDUSTRIES, INC.

1524 S. WABASH AVE., CHICAGO 5, ILL.

OFFICES IN PRINCIPAL CITIES

a safety program. Most of the other 90 per cent are employed by smaller companies.

Top management sometimes ignores two important costs of accidents to business — antagonistic public opinion, and ill-advised legislation.

American industry needs and must have an effective means to prevent accidents. If it is not provided, it appears certain that other agencies will do the job for us through legislation and enforcement.

—L. R. Flicker, *Permanente Cement Co. (Commercial Vehicle)*

But You Must Use Them

Posters and graphs are two visual aids that the plant superintendent who doubles as safety engineer should use widely. It is much easier for most people to learn by looking at pictures rather than through use of the written word.

Most small plants do not have safety engineers. Therefore, su-

perintendents and supervisors must teach safety as well as keep the plant in production. Under circumstances like this, visual aids, particularly posters and graphs, should be used.

These visual aids have been created by experts in various fields. The small plant superintendent and supervisor have 95 per cent of the job of creating a safety program already done for them, but it's not going to help unless they put it to use.

—R. R. Murray, *Swift & Co. (Fertilizer)*

A Little Learning

In safety, a little learning is a dangerous thing.

Accepting and using oversimplifications and catch phrases in safety can be dangerous.

No one will admit any association with a small plant. Yet everyone blames the small plant for the large number of state or national industrial accidents.

Many also charge most indus-

trial accidents to unsafe acts, thereby shifting the blame for their own lack of a safety program.

—W. C. Creel, *North Carolina Dept. of Labor (Fertilizer)*

Get 'Em Young

The most effective safety training is with youth groups. Adults form habits that are hard to change. Furthermore, it's more difficult to make the correct things a part of adults' lives after they've reached maturity.

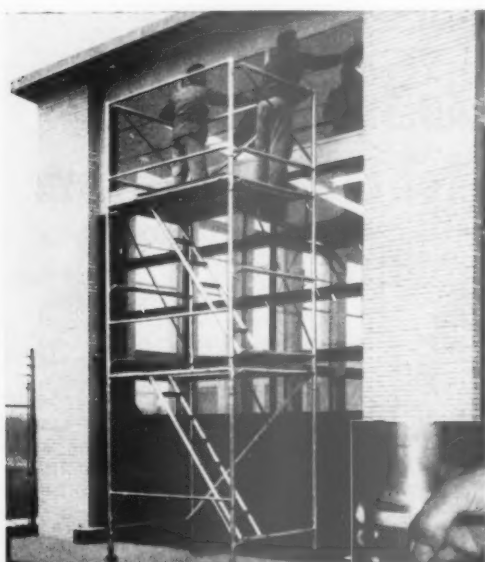
Quoting Solomon, "Train up a child in the way he should go and, when he is old, he will not depart from it."

—E. C. Martin, *Texas A & M College (Petroleum)*

Not "No Man's Land"

Mrs. Housewife may not believe this, but men have become interested in housekeeping.

Use of incentive programs and contests have helped materially in selling good housekeeping to su-



"FOLD-A-WAY" Aluminum Scaffold, two sections high, speeds work on typical maintenance job. Inset: New type "built-in" Extension Leg gives safe, positive adjustments without lifting Scaffold. Two quick turns give 1" of adjustment.

This Aluminum Scaffold Opens Like a Book

ONE OF THE MOST remarkable scaffolding developments of recent years is the "Fold-A-Way"® Aluminum Scaffold, designed with a folding base section that one man can erect in less than 60 seconds. It is approved by Underwriters' Laboratories, Inc.

"Fold-A-Way" end frames swing open sideways (like the pages of a book) while the 7'-high base unit is in a standing position, making an easily-managed swing of about 90 degrees, while the operator stands inside base area.

Made of 61S-T6 aluminum alloy with 2" O. D. tubes for major members, the "Fold-A-Way" Scaffold features 5" aluminum, rubber-tired caster wheels. New Extension Legs permit height adjustments up to 24". Base section dimensions are 4'6" x 6', and height is 7', including casters. Intermediate sections are 6' high, while the half section and folding guard rail section are each 42" high. Write for Bulletin ASF-1.

*Trade Mark



Sections fold into a compact 6 1/2" package. Requires no skill or overhead balancing.



End frames swing outward like pages of a book. Entire base section is free standing during erection.



Workman is constantly within the base area of the scaffold. No loose parts.

FOR GREATER SAFETY...EFFICIENCY...ECONOMY



THE PATENT SCAFFOLDING CO., Inc.

38-21 12th Street, Dept. NSN, Long Island City 1, N. Y.
6931 Stanford Ave., Los Angeles 1, Calif.
Branches in all principal cities

LADDER SCAFFOLDS

2' wide and 4'6" wide
Erected from ladder frames of three heights, these wide Aluminum Ladder Scaffolds are available in spans of 6 ft., 8 ft., or 10 ft. Approved by UL.

pervision and the workers.

During a typical contest in one plant, each department is inspected once every other week. Demerits are given for poor or unsafe conditions and credits for conditions corrected. At the end of the contest, each man in the department with the highest score receives a prize.

One feature of this program is that men on the job participate in the inspection along with supervision and are becoming increasingly conscious of their responsibilities toward plant house-keeping and safety.

—Frank C. Starbird, Firestone Tire & Rubber Co. (Rubber)

What Guards Can Do

In doing their job of preventing accidents, mechanical safeguards also promote efficient production.

There are three basic qualifications for machine guards: Guards should make the hazard inaccessible; make the machine inoperative when it is not in place; and cause the machine to stop safely when an operator's

error increases the hazards of operating it.

Properly developed and production-proved machine guards open up the use of machines to even the least-skilled operator. They permit a wider range of machine use. They often reduce machine abuse. Best of all, they control the frequency and severity of accidents stemming from the hazard they guard because such accidents are largely prevented.

—N. C. Longee, U. S. Rubber Co. (Rubber)

No Riders

You can't drop anything on the foot of the man who isn't there. So reduce the human element in materials handling and you automatically increase the safety factor.

That is the main reason conveyors are the safest method of moving materials or objects. Of 185,000 compensation cases reported from New York, Ohio, Pennsylvania and Wisconsin, only .85 per cent are chargeable to conveyors.

I believe that the chief reason conveyors are safer is simply that an operator is not required to ride with the load being conveyed.

—H. C. Keller, Lamson Corp. (Handling Materials)

Too Much of a Good Thing

Too much safety equipment can be as bad as too little. Too much can defeat its own purpose by arousing an attitude of opposition on the part of the worker. He feels it is unnecessary equipment and discards it as soon as he's out of the sphere of supervision.

Improper or inefficient equipment also can give the worker a false sense of security.

Proper safety equipment is more than furnishing an array of personal equipment. A worker will gain only from the use of equipment he understands, and that includes understanding its limitations.

—J. D. Acree, Crawford Chemical Co. (Fertilizer)

DROWN FIRE HAZARDS WITH SIPCO DUNKING STATIONS



SIPCO DUNKING STATIONS end this fire hazard once and for all by immediately drowning every last dangerous spark.

Built of rugged heavy cast aluminum, they are designed to hold water for this purpose—and they can never rust or wear out! GUARANTEED NOT TO BREAK!

Although they are built for heavy industrial use—and abuse—you'll find that your employees will use—not abuse these DUNKING STATIONS!

CIGARETS, CIGARS, MATCHES, ETC.,
IMMEDIATELY EXTINGUISHED!

No Smoldering is Possible!

It's not the cigaret or cigar that's being smoked that causes fires—it's after they're discarded and forgotten that they become a terrible fire hazard!

Integral brackets for hanging, wide slot and rugged piano-hinged cover. They are simplicity itself to maintain and clean.

Why not rid your plant of smoldering fire hazards by installing SIPCO DUNKING STATIONS? They are economical, attractive—the perfect solution to the smoking problem in your plant!

UNIT NO. 1 — Canister, sign, upright & base.

UNIT NO. 2 — Canister & sign.

UNIT NO. 3 — Canister alone. (Not illustrated)



WRITE TODAY FOR DESCRIPTIVE LITERATURE

STANDARD INDUSTRIAL PRODUCTS CO.

116 SOUTH GARFIELD AVE., DEPT. 5

PEORIA, ILLINOIS

Young Workers Have More Sickness

YOUNG PERSONS lose more time from work because of illness than do older men and women, according to a recent survey among employees of the Du Pont Company.

In the 24-29 age bracket, 55 per cent of all employees had a time-losing illness last year. Among those in the 36-40 bracket, only 33 per cent had lost time, while in the 55-60 bracket it was 49 per

cent. In all groups, most missed less than a week.

A typical family of four spends about \$300 a year on medical bills, including insurance, and this is bolstered by the health services and protection which the company provides each employee. Annual physical examinations, basic research and industrial medicine, special attention to such problems as alcoholism, and other activities have all worked toward better

health. Disability wages, which Du Pont pioneered 17 years ago, provide normal pay for three months, eliminating loss of income during prolonged illness. Other company-paid plans cover hospital and surgical care for employees.

The average U. S. worker loses 7.5 days of work a year because of illness or non-occupational accident. The average Du Pont employee loses only 4.3 days from the same causes.

A cardinal factor in the health record is the emphasis on preventive medicine. A corps of 166 doctors, six scientists, and about 350 nurses and technicians conducts this program. Annual physical examinations for all employees and periodic checks for employees in particular jobs are keeping a close watch on general health and spot trouble early. Further, the company has undertaken pioneering research in preventive medicine, exploring areas such as physical fatigue and the fundamentals of better health for men and women in industry.

More than 56 per cent of the 1,471 employees in three plants had no occasion to call a doctor for themselves during the year but 57 per cent summoned one for family illness—for which the doctor made an average of 2.5 calls during the year. Medicine and drugs cost an average of \$76 for employees who kept records of what they spent.

Just 70 per cent of the employees saw a dentist last year; 40 per cent more than once. Up to age 35, some 77 per cent saw the dentist, but over that age, only 61 per cent had dental care.

Over all, only one employee in seven had faced major surgery during the past five years; but a third in the 50 to 55 age bracket had lost time (an average of 1.7 weeks) due to operations in those five years.

During last year, according to the surgery, 54 per cent of the employees missed no time due to illness while 27 per cent missed less than a week. Only two per cent missed as much as four weeks. Even at age 40 and over, 56 per cent had no time-losing illness.

Clean...Dry...Slip-safe Floors IN JUST 90 SECONDS!



HILD
Vacuum
Pick-up
leaves floors
really dry

HILD
Shower-feed
Scrubbing
gets floors
really clean

The picture tells the story! Two men operating as a team with HILD Equipment can scrub and dry floors under and around machines...while operator steps aside for 90 seconds or less. HILD Equipment goes right to the edge of machinery...leaves no slick film to cause slip hazards. The same equipment may be used with numerous attachments to perform scores of clean-up jobs in factory and office.

Write for FREE CIRCULAR



ONLY HILD
HAS THE PATENTED
SHOWER-FEED BRUSH
Refillable, when bristles become worn, by merely attaching new refill block. It's done with a screwdriver in 5 minutes or less.



HILD FLOOR MACHINE COMPANY

740 W. Washington Blvd., Chicago 6, Ill., Dept. N5-11
Factory Branches
250 E. 43rd St., New York 17, N.Y.
4271 W. Third Ave., Los Angeles 5, Cal.



WHAT'S NEW

IN

NATIONAL SAFETY COUNCIL SERVICES *

Operation Safety

WITH CHRISTMAS holidays around the corner, off-the-job safety people are naturally concerned with the special traffic hazards employees will encounter during the festive season.

High on the list of causes contributing to holiday traffic accidents is the increase in social drinking at this time of year. Many people don't realize that even a few drinks can slow up their reactions enough to impair their ability to drive safely. Consequently they think nothing of climbing behind the wheel of a car after they've been drinking.

An educational campaign to impress upon employees the danger of driving after drinking can appreciably cut down absenteeism caused by traffic accidents. The December Operation Safety Kit contains two items that would be extremely effective in such a program. They are a leaflet and a poster on the subject of drinking and driving.

The leaflet title is: "Now's the Time to Say, 'No!'" Printed in two colors and using cartoon and photographic illustrations, this leaflet states the case against drinking and driving briefly and effectively.

It can be used as a stuffer in employee mailings, distributed at meetings and other employee gatherings, placed in handout boxes, and attached to announcements of the company Christmas party.

The poster carries the message, "Drinking plus Driving equals Disaster." It comes in two sizes, the "C" size, 25" x 38", and the "A" size, 8½" x 11½".

The large size can be posted at exits and entrances to plant parking lots and wherever there is sufficient display space throughout the office or plant. The "A"

size is ideal for bulletin board use. It may also be used as a counter or table card. Special metal frames are available for mounting the "A" posters when they are used in the latter manner.

Complete information on these posters and leaflets may be obtained by writing Operation Safety, National Safety Council, 425 N. Michigan Ave., Chicago 11, Illinois.

New Publications

Some publications not previously mentioned on this page that have been added to the Council's growing list of publications are listed below.

30 Tailboard Talks—A guide for use in preparing short safety talks for electric and telephone linemen, gas and water company crews. Covers such subjects as pole-climbing, customer service, meter installation, etc. Illustrated.

Reaction Timer—A novel way to focus attention on reaction time. Shows drivers how important it is to know proper braking distance, makes him aware of his own reaction time. Printed in two colors on light card stock.

Mac Hines—Trooper—An unusual comic-type traffic safety booklet that forcibly illustrates how and why accidents happen and some of the things that can be done to help avoid them. Every worker who sits behind the wheel of a car should have a copy of this booklet for himself, and especially for the teen age drivers in his family. Four colors.

Andy Larkin—Andy Larkin, veteran ambulance driver, shows a newcomer how to drive safely in this four-color comic book.

Watch Out for Wires—Explains the danger of fallen or dangling wires—what to do about them and how to guard against exposed wires. Also describes the safe way to help a person who is in contact with a live wire. Three-fold leaflet in two colors.

Construction Manual—New revised edition of the Associated General Contractor's Manual of Accident Prevention in Construction. Illustrates the safe way of performing construction jobs and emphasizes the costly results of unsafe practices. Included are new sections on welding, power saws, flammable gases and liquids. Numerous photographs, drawings and charts have been added.

Safety Instruction Cards

No. 707 Standard Railroad Signals (Hand, Flag & Lamp)

No. 708 Handling Chipper Knives

No. 709 Explosive Wedges or Guns (Preparations for Firing)

No. 710 Explosive Wedges or Guns (Handling Explosives)

No. 711 Explosive Wedges or Guns (General Precautions)

No. 712 Towing Aircraft

No. 713 Taxiing Aircraft

No. 714 Jacking Airplanes

No. 715 Mobile Ramp Equipment

No. 716 Aircraft Portable Work Stands and Ladders

No. 717 Hanger Housekeeping

No. H-178 Wet Mopping

No. H-179 Pick Up or Clean Up Before You Slip Up

No. H-180 Cutting Tools

No. H-181 Don't Mix Oxygen and Oil

No. H-182 Something on the Floor?

No. H-183 Go Slow

No. H-184 Pharmacists! Check Labels Twice

No. H-185 Elevator Doors

Safety Reprints

No. 46 Eye Injuries (Kuhn)

No. 47 Thirsty Granules

No. 48 Placement, Not Exclusion

No. 49 Look Out for Office Accidents

No. 50 Evaluation of Vibration Waves Due to Blasting

No. 51 What Does It Cost—How Much Does It Save?

No. 52 An Industry Headache

No. 53 Facts and Fallacies About Your Eyes

No. 54 Volts and Jolts

No. 55 Skin Trouble is Plenty Trouble

No. 56 Safety in Canning Industry

No. 57 Applied Engineering Principles Reduce Costly Accidents



Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Department.

For a Successful Poster Program



JUMBO POSTER for DECEMBER 1954

POSTERS miniaturized on this and the following pages are NEW. Excepting the Jumbo posters (at left), all will be in stock throughout 1955. Those posters shown in one color on the following two pages are actually printed in two or more colors.

A wider selection of subjects is as close as your copy of the 1954 Directory of Occupational Safety Posters. *It contains miniatures of 744 posters—topnotch selections on a great variety of subjects.*

We're interested in

EVERYBODY'S SAFETY *especially* **YOURS!**

JUMBO POSTER for JANUARY 1955

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".



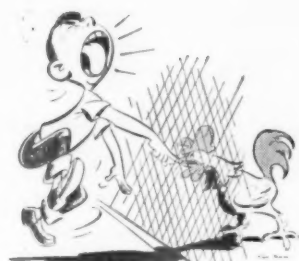
0346-C

25x38

Above new "C" poster, issued monthly, is indicative of the other two color posters—shown in one color on the following pages and in the 1954 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



**GUARDS ARE FOR
YOUR PROTECTION!**
—Respect them

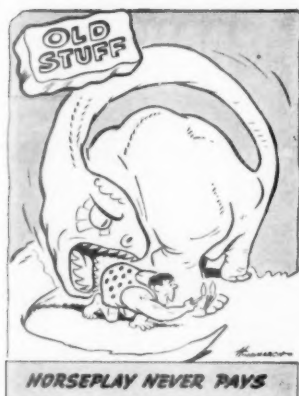
NATIONAL SAFETY COUNCIL
0299-A 8½x11½



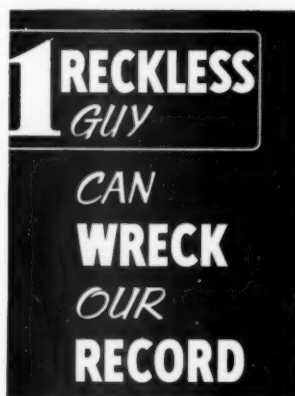
NATIONAL SAFETY COUNCIL
0312-B 17x23



NATIONAL SAFETY COUNCIL
0295-A 8½x11½



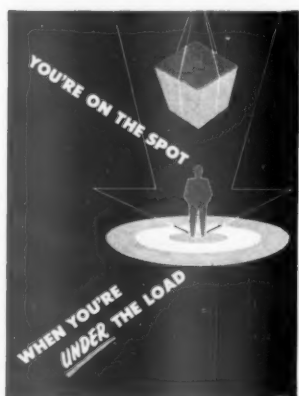
NATIONAL SAFETY COUNCIL
0321-A 8½x11½



NATIONAL SAFETY COUNCIL
0311-B 17x23



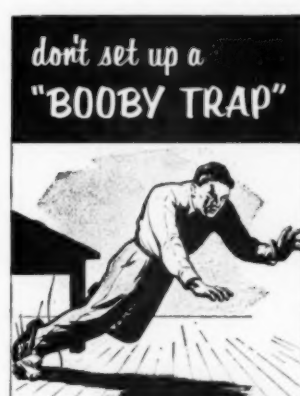
NATIONAL SAFETY COUNCIL
0242-A 8½x11½



NATIONAL SAFETY COUNCIL
0314-B 17x23



NATIONAL SAFETY COUNCIL
0307-A 8½x11½



NATIONAL SAFETY COUNCIL
0266-A 8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Posters below are printed in two or more colors

(Available only in sizes indicated)



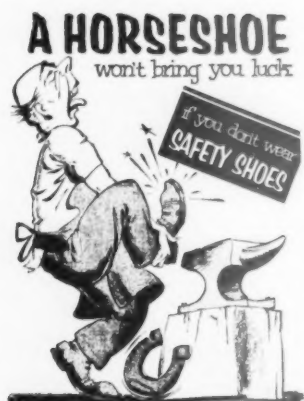
NATIONAL SAFETY COUNCIL
0247-A 8½x11½



NATIONAL SAFETY COUNCIL
0261-A 8½x11½



NATIONAL SAFETY COUNCIL
0272-B 17x23



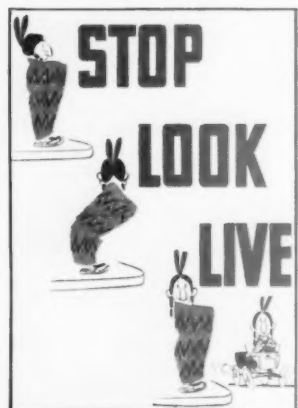
NATIONAL SAFETY COUNCIL
0281-B 17x23



NATIONAL SAFETY COUNCIL
0313-A 8½x11½



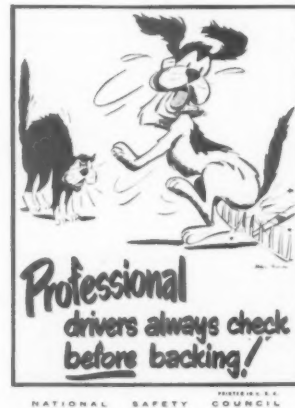
NATIONAL SAFETY COUNCIL
T-0286-C 25x38
T-0287-A 8½x11½



NATIONAL SAFETY COUNCIL
T-0320-B 17x23



NATIONAL SAFETY COUNCIL
V-0316-A 8½x11½



NATIONAL SAFETY COUNCIL
V-0317-B 17x23

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

It Doesn't Work

IT IS STILL widely believed that a safe solvent can be made by mixing a non-flammable substance with a flammable one. But it doesn't work out that way.

If the flammable solvent is more volatile, the vapor may be highly flammable even though the mixture is non-combustible in liquid concentration.

If the nonflammable solvent is more volatile it may evaporate, leaving the flammable liquid.

And the mixture may become both flammable and toxic.

Flash points and toxic qualities of individual solvents are quite generally known. But you can never be sure about a mixture.

Personals

—From page 78

tion program for the natives of one country, the fatality rate was reduced 85 per cent.

Succeeding Mr. King at Fort Knox is Harold P. Tibbits, who has been employed as a training officer with the Civilian Personnel Office there for the past three years.

DR. JOHN T. GOODWIN, formerly with the General Electric Company, has been appointed manager of the chemistry research division of the Midwest Research Institute.

Dr. Goodwin has been closely associated with the development of silicones.

Born in San Diego, Calif., Dr. Goodwin received his bachelor's degree from Oklahoma A & M College and obtained a Ph.D. in Chemistry at the University of Pittsburgh in 1948. Dr. Goodwin holds more than forty patents dealing with methods of manufacturing of organosilicon compounds and alkyl resins.

Prior to joining the Midwest Research Institute, Dr. Goodwin had been associated with the Mid-Continent Petroleum Corporation, the Gulf Research and Development Company, the Mellon Institute of Industrial Research, the Dow-Corning Chemical Company and General Electric.

For Safety For Powerful Action

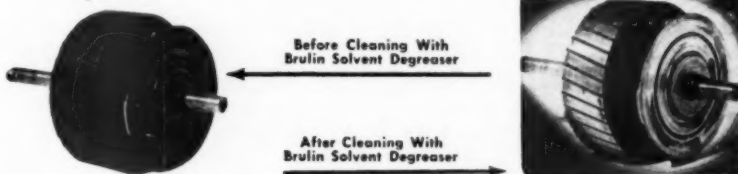


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COOLER FOUNTAINS

Chemicals Clear Brush From Right of Way

HERBICIDES have been used successfully for the past six years to keep brush under control on rights of way of the Pennsylvania Power and Light Company, a recent Middle Eastern District Meeting of the American Institute of Electrical Engineers was told.

Prior to 1949, said L. Z. Ludorf, company assistant division superintendent, rights of way were cleared by hand cutting, but rising costs and inadequate equipment stimulated search for more efficient tools in the form of power equipment, followed by experimentation with herbicides. Today the cost to hand-cut an acre of brush is at least twice the cost to spray an acre with chemicals.

In 1945 "shear-doing" followed by discing was resorted to but was abandoned. Today the cost of this method would be about five times the cost of spraying, he said. The company uses a combination of the chemicals, 2, 4-D and 2, 4, 5-t.

Mr. Ludorf said the mixture not only keeps brush under control, but "also improves game lands by encouraging propagation of low growing plants which in turn provide food and cover for wild life." As mixed for brush control it is not toxic to man or wild life, he said.

Trailer Clinic

—From page 73

ployment population generally is evaluated by company management on the basis of the trailer-clinic findings and other health surveys, such as those concerned with the employees' safety or working environment.

These evaluations will aid a movement to improve working conditions and to implement correct job placement, while planned health education and an immunization program are also integral facets of the new health program.

A recent survey of some 3600 industries indicates that this type of program may reduce occupational diseases by 45 per cent; absenteeism by 25 per cent, and labor turnover by nearly 30 per cent.

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Stream Pollution Is Growing Problem

SHORTAGE OF ADEQUATE SEWAGE and industrial waste facilities is causing pollution of the country's waterways at an alarming rate, a speaker warned the recent Federation of Sewage and Industrial Wastes Convention in Cincinnati.

H. R. Wallrath, manager of General Electrical contractor and construction industry sales, stated that disposal capacity has not kept pace with city growth of the last decade. He declared that current national expenditure of six hundred million dollars for sewage treatment, if tripled for the next five years would ease the problem and realistically provide for future population growth.

Mr. Wallrath's speech was occasioned by the premiere showing of a revised version of the motion picture, "Clean Waters," which is the visual portion of General Electric's More Power to America sewage treatment program. The 16mm color film is expected to serve as a tool for use by associations, conservationists, sportsmen and others eager to create a public awareness of the consequences of unchecked water pollution.

As an insight into the size of the job to be done, Mr. Wallrath said there is an immediate need for 6700 new sewage plants and 3500 industrial waste facilities for the nation. In addition, many of the present 6600 plants are inadequate and must be expanded, he said.

Recreation, commercial fishing, and municipal water facilities are threatened by contamination and pollution. In the New England area only a few waterways remain unpolluted where not too long ago 28 major waterways were abundant with game fish. During the last two decades, the oyster business has dwindled to one-quarter its former size while the market price of the shell fish has risen 100 per cent. National experts attribute this decline to increased pollution and contamination of coastal waters and waterways in the oyster "farming" areas. They feel that continued lack of public concern towards

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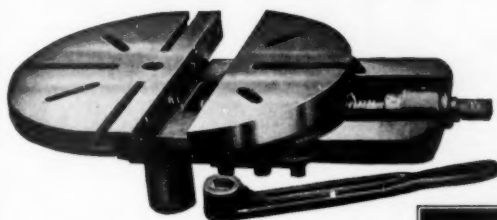
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hundreds of former bathing areas
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the result that bathers must now
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reach water which has not yet
become contaminated.

The Six C's

—From page 19

versally favorable response your
consideration will receive. Make
the experiment permanent with
everybody involved in your acci-
dent prevention program. It will
produce great results.

3. **Cognizance** — not Cajolery.
Recognition is a better word, but
it doesn't begin with the letter
"C"!

Each of us wants someone to
recognize or take cognizance of
something we do or say or are.
For example, it would please me
tremendously to hear someone
say, "My—you have a beautiful
head of hair!" Better yet, it would
be wonderful if someone who
conducts beauty contests would
award me a prize for having the
most beautiful head of hair among
the men of this country. What
such recognition would do for me
—and to Liberace!

Recognition of values and vir-
tues can be simple. It finds ex-
pression in a host of ways. As an
incentive, it is incomparable. A
pat on the back, especially by
someone you respect . . . a gold
plated plaque . . . a great banquet
(with eulogies of course!). There
are almost infinite methods and
degrees of recognition.

The human need for recogni-
tion makes the recognition as
important, yes, even more impor-
tant sometimes, than a salary in-
crease.

I know a man and his wife who
were born in Italy. He is a shoe-
maker in a small city. They have
four children—three sons and one
daughter. All four are college
graduates. Two of the boys are
Roman Catholic priests; the other
is a doctor. The girl is happily
married to a physician. Last year

the Archbishop named them as the family of outstanding achievement in his diocese. What pride on the part of the parents when the award was presented to them by the Archbishop at a special ceremony. What happiness is theirs in the memory of this well-deserved recognition—for the rest of their lives!

4. **Comfort**—not **Care**. There is an extremely delicate balance between absolute financial security and complete insecurity. Either extreme can be quite undesirable. It is an important social question and it is doubtful if any single formula would make for justice in all individual cases.

The security I am talking about means at the very least the necessities of life—food, clothing and shelter for the family, adequate health measures including medical services and unexpected hospital care, educational opportunities for the children, including proper social development—and the projection of these into the years of retirement.

Comfort or peace of mind on this point is essential for good citizenship and for effective workmanship. Care or worry has adverse or ill effect on the individual, his home relationships, his community responsibilities, his vocational productivity, and his safety practices—everywhere.

We in safety are concerned with financial security to the point where all American citizens are not impaired in their safety practices, on and off the job, by undue concern about finances. Each of us should feel that as long as we perform our duties to the best of our abilities we should live in reasonable comfort and look forward to our retirement years as useful and comfortable citizens.

We in safety do not have great riches as our goal. We do not aspire to great power. And we do not expect the adulation of the American people as heroes. Yet with that degree of financial security which brings comparative peace of mind, we can and should have a satisfying amount of comfort. We do and should exercise beneficent influence in our radius of activity, and we can and

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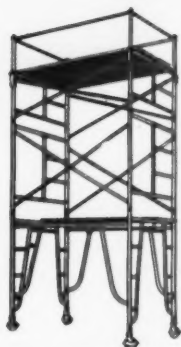
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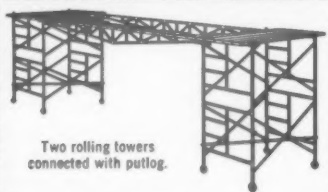
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should be heroic in meeting our great opportunities and responsibilities.

5. Confidence — not Conceit.

Here we face the problem of maintaining a clear distinction between self-assurance and arrogance. Conceit leads to arrogance and therein lies the seeds of self-destruction as far as our usefulness is concerned. There is no conceivable justification for conceit on the part of any human being.

Even a casual study of the life of the Great Teacher would convince all but the most obtuse that a spirit of true humility is the cornerstone of a life of virtue and good works. The greatest of men and women since His short time on earth have demonstrated that characteristic over and over again. The story is told of one of our great divines, William Buell Sprague, who on his deathbed prayed, "God, I've been a pretty naughty boy. Please make me a better one."

Self assurance, confidence, is a necessity for optimum performance. We need to assess our individual assets. We can be neither omniscient or omnipotent. We should select the things to undertake that we know with reasonable assurance we can do. Then let us with confidence advance to those tasks with a will which again with reasonable assurance bring success.

This doctrine of confidence is needed in all walks of life but nowhere more than in safety. After half a century the safety movement is still short of complete fulfillment. Study carefully the factory worker, motorist, pedestrian, farmer, housewife, tradesman, hunter, fisherman—yes, study yourself.

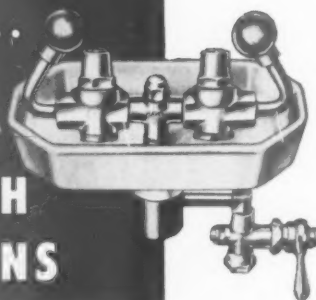
Note the general public acceptance of medical services, religion, preventive health measures, democratic government, taxes, transportation, banking, marketing, and a host of other elements in our national life. Safety is a step-child.

The point of course is that in any field of action such as ours where we encounter resistance or at best indifference among a large percentage of our fellow men, we

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who are converts to the doctrines of safety need to chart our course as individuals and as groups with care and confidence.

6. **Conduct**—not Coma. Any school child knows the importance of an "A" for Conduct and Effort on his report card. So does any parent. There is in human nature a deep yearning to do something worthwhile, and to do it well. It is unimportant whether this yearning is innate or acquired. It is unimportant whether it is a conscious yearning or not. In any case it should be nourished.

Certainly, we ought to live so that our influence among our peers, among those we supervise, among our friends and neighbors, will encourage them to so conduct themselves in the prevention of accidents that they, too, enjoy the gratifying sense of feeling that follows good workmanship.

This rewarding concept of conduct should not end with a contemplation of the day ended, but should turn to the enthusiastic consideration of the opportunities of tomorrow. Our religious pattern embraces and underlines the Brotherhood of Man. Let's practice it.

Some years ago I provided a controversial definition of immortality as the gap between what we do and what we can do. The definition assumes worthy conduct. It is a harsh definition, but to me a stimulating one. Try it on for size.

You and I like to feel at day's end that we have done something worthwhile; that we have made something useful; or that we have done someone a good turn. Let us in the safety field live, then, that the ringing words "Well done, good and faithful servant" may be our richest and most gratifying reward in this life.

And so we have the six C's—Cooperation, Consideration, Cognizance, Comfort, Confidence, and Conduct.

These do not, of course, represent all of the human characteristics which, if properly cultivated, would make this world a better place in which to live. But they do have the virtue of making a short list, and if we will

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If you have a dust or similar hazard, these "Fetherwate" goggles will be welcomed by your employees. They render real service—have a long life—and the price is extremely low. Here are reasons for the popularity of these No. 30 Goggles.

- 1 Light weight. Less than ½ ounce. You barely realize that you have full eye protection.
- 2 Seeing clarity has been so improved that it now equals the clarity of the highest quality spectacle lenses.
- 3 The special clear .020 acetate withstands flame and pitting.
- 4 The rounded lens wraps around the eyes, assuring the greatest possible comfort. Adjustable flat elastic headband.
- 5 Gives full protection to the eyes against dust and similar eye hazards.

Most dealers carry these goggles in stock and can make immediate delivery. We suggest that you adopt them as standard equipment for employees.

If you have never used these goggles, we suggest that you write for a sample pair on memo for test purposes. If after 30 days trial you do not find them everything and more than we claim, return them for full credit.

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keep it in the foreground of our consciousness and incorporate it in our daily lives, I think we will find new measures of satisfaction.

We will do our safety job better and we will be better citizens of our communities, our nation, and our world.

Application of these six C's by individuals, by organizations, and by governments can change degeneration to regeneration, frustration to fruition, vacillation to victory.

We have but one short life to live. God grant that we may live it with high purpose, with enthusiasm, with sincerity.

What I have tried to say has been beautifully expressed in my favorite poem, *Thanatopsis*. You remember the last stanza:

So live, that when thy summons comes to join

The innumerable caravan that moves To that mysterious realm where each shall take

His chamber in the silent halls of death. Thou go not like the quarry-slave at night,

Scourged to his dungeon; but, sustained and soothed

By an unfaltering trust, approach thy grave

Like one who wraps the drapery of his couch

About him, and lies down to pleasant dreams.

Metal-Working Fires

—From page 29

maintenance personnel, particularly workers for outside contractors, inadvertently introduced a fire hazard into a hazardous area. A supervised permit system has been used successfully by many industrial plants for all "hot work" and extra-hazardous operations.

Housekeeping

Worn equipment should be replaced in accordance with fixed schedules based on experience, and temporary makeshift repairs should be avoided. Records should be kept on all equipment failures in order to determine critical points of wear and to insure frequent inspections. All safety equipment, including ventilating ducts, safety controls on processes, fire alarms, and fire

extinguishers, should be included in this maintenance program.

Good housekeeping in metal-working plants is synonymous with organization and orderliness, and an important element of fire prevention. A large proportion of the fires in plants are caused by laxity in handling rubbish and waste materials.

Ventilation equipment and dust collectors must be frequently serviced to prevent the accumulation of dangerous products. Some building interiors become coated with oily deposits, grease and dirt accumulations after many years of operation and thereby expose the plant to rapidly spreading fires, particularly where automatic sprinkler protection is not provided.

Hoods and duct systems exhausting oil-laden vapors should be sprinkler protected. Congested aisles and poor routing of production materials may lead to dangerous accumulations of combustibles, and will hinder control and extinguishment of fire. Drains should be provided for liquid spills and accidental leakage which should be diverted to avoid their discharge into public sewer systems. Similarly, flammable washings and degreasing solvents should never be dumped into sewers.

Other hazardous process wastes must be continuously removed. Receptacles for waste and metal scrap are a great aid to safe disposal. Combustible floor sweepings and sawdust used to remove oil waste from floor areas have frequently been the cause of serious plant fires.

Spray booths and dip tanks require frequent cleaning to prevent the accumulation of highly combustible paints and lacquers. Metal dusts should not be permitted to accumulate in any part of the plant area as they have caused serious explosions.

Metal scrap is one of the important by-products of the metal-working industry. This waste material has considerable value as it can be salvaged for remelting and further use. Large scrap sections such as sheet metal and extrusion waste are often placed outdoors for temporary storage.

Shavings and cuttings mixed with oils should be separated into the various metals and alloys and they should be kept in covered metal containers. These turnings should be kept in a dry, cool place during storage as they may be subject to spontaneous heating.

A serious fire occurred several years ago when 1,300 tons of iron and steel turnings, saturated with cutting oils, were ignited. The fire burned for about two weeks before it could be extinguished. It was finally brought under control by spreading the turnings over a large area and utilizing carbon dioxide and water spray to extinguish it. The storage of large quantities of turnings in small, thin piles permits the dissipation of heat more readily than large pile storage.

Neglect of proper disposal of combustible rubbish and trash, such as wiping rags, oily clothing, paint spray deposits, and other unwanted residues, including packing wastes, can present seri-

ous fire problems. Good house-keeping should include safe disposal of such hazardous materials by burial or controlled burning in suitable incinerators or at safe distances from buildings.

Light wastes in volume are frequently burned as boiler fuel. Other wastes may require outdoor burning and should be under fire department supervision. In some areas, scavenger concerns make a specialty of collecting waste solvents and refine them for further use. Where appreciable quantities of combustibles are encountered, special industrial type incinerators designed to insure complete burning and prevent flying brands, should be constructed.

Dry weeds and grass around the yard and adjoining areas also present a definite exposure hazard, since many fires have been transmitted to a factory building by fires outside the premises.

Falls of Ground

—From page 25

paign year and accomplish either of the following results:

1. A reduction of 50 per cent in the frequency of injuries from falls of ground in comparison with the record for the previous period reported by the mine.

2. A record of no chargeable injury due to a fall of ground during the entire campaign year.

Members of the special campaign committee of the Mining Section in addition to Mr. Boardman are C. S. Gibson, safety director, Mines Accident Prevention Association of Ontario; A. J. Stromquist, safety director, Cleveland Cliffs Iron Company, all past general chairmen of the Mining Section; Ivan Sloane, safety director, Canadian Johns-Manville Company, Ltd., and Howard Rice safety director, Southwest Potash Company.

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Cases for Comment

—From page 40

elected to go home for personal reasons.

Comment. The facts seemed to indicate clearly that the man had taken himself out of employment by going so far afield in taking his personal car home. However, decision on such a case might be more difficult if the employee had lived on the route which he would have had to take to get the company car and had merely driven his personal car to his home on the way. In such instances, the question might arise "at what point of departure from the usual route would an employee take himself out of his employment?"

Should an employee be allowed a reasonable diversion when such situations arise or should a strict and rigid rule be applied? Then, what is reasonable and what is unreasonable?

Standard vs. Compensation Act

The employee's work consisted mainly of loading finished wire for shipment by tractor-trailer trucks. On the date of the injury the employee was transferring coils of finished wire from a four-wheeled buggy, which had been spotted inside a trailer, to the floor of the trailer, which had been spotted at the loading dock by the truck driver. The front end of the trailer suddenly dropped to the ground, causing a coil of wire to strike employee's leg. Upon examination by the company doctor, the employee was found to have a depressed fracture of the right tibial plateau, which caused him to be hospitalized and lose considerable time.

Upon investigation it was found that the employee had been performing his work in the customary safe manner, but the truck driver had failed to properly block the front end of the trailer before detaching the tractor. This particular operation was his sole responsibility.

The injured man elected to proceed against the trucking company, whose insurance carrier accepted full responsibility for the accident. It will be classified in

their records as a highway accident and not as an industrial one.

Under Massachusetts law, an employee injured through negligence of a third party has the option of proceeding at law against the third party to recover damages or against the immediate employer for workmen's compensation. He cannot, however, proceed against both parties.

Should this injury be charged to their records as a statistical accident, since the workmen's compensation law is as it is?

Decision. This injury should be included in the company's industrial injury rates. The American Standard method of compiling industrial injury rates, Z16.1-1945, in general provides for inclusion of all injuries that "arise out of and in the course of employment." In this case, the judges decided that the injury arose out of and in the course of the employee's employment and therefore should be included in the rates.

Comment. The chargeability of industrial injuries as determined by the American Standards Association Code Z16.1-1945 does not depend upon the workmen's compensation law of the state in which the injury occurred. Each of the 48 states has a different workmen's compensation law which would require a variety of decisions on the same type of injury if the law was to control.

Shouldn't someone be responsible for constantly checking on the activities of independent contractors on the premises to make sure that their actions do not constitute hazards to the employees? Should this be the responsibility of the employee or of supervision? In any event, this case indicates what might happen. In many instances the resulting damages may be much more severe.

Ordnance Safety School Reopens

A Safety Directors Seminar beginning September 13 marked the reopening, after a summer recess, of the School for Ordnance Technical Safety held at the Ordnance

Field Safety Office, Charlestown, Ind.

Representatives of establishments with similar missions, operations, and problems, in groups of 18 to 25, meet for one week around the conference table. A total of ten Seminar groups have been scheduled comprised of 218 persons representing 83 Ordnance Corps establishments, 14 Ordnance Districts, the Ordnance Tank-Automotive Command, the Ordnance Ammunition Command, and the Office, Chief of Ordnance. Because of the interest shown to date it is possible that additional groups will be scheduled.

Eliot V. Parker, U. S. Army safety director, visited the Seminar on September 24. He participated in the panel discussion of special problems and answered questions of policy regarding the over-all Army Safety Program.

AGA School

—From page 37

Much money and manpower continues to be lost. Management must come to realize that our accident rate can be reduced materially by adoption and support of a planned accident prevention program."

As now set up, the course takes two days. The first day begins with a general introduction of Accident Prevention Committee members and their students, followed immediately by a survey of background and statistical data on the gas industry's accident record and its position in the nation's safety picture. This leads directly into the presentation of the first main topic of the course, "The Philosophy and Basic Principles of Accident Prevention." Other main heads covered during the first day:

- How to set up a safety program
- How to make a safety talk
- Investigating and analyzing accidents
- Summary of day's topics
- Question and answer period

On the second day's agenda:

- Planning and conducting a safe operations meeting
- Methods of securing favorable worker response
- How to maintain interest
- Summary of course

—Next page

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Presentation of regional plans and data

Question and answer period

Following the presentation of each main topic, the important points are elucidated by group discussion and the showing of pertinent cartoon films, sound slides, charts and graphs. Course students are repeatedly urged to ask questions and to bring up problems arising in their own work.

In all, nine sound slidefilms, three movies and two safety graphs are used to point up the main themes of the course, and thirteen pamphlets and booklets dealing with every aspect of accident prevention are distributed at salient points in the course's progress.

Coffee and lunch breaks offered an excellent opportunity for gathering informal but invaluable reactions to the course. At Ama-

rillo, Wichita, and Fort Dodge the reactions were surprisingly enthusiastic: "I think we ought to have meetings like this on a regular basis." "Don't see why this kind of thing shouldn't include every employee in the company, all the way up and down the line." "I'd sure like to see the statistics on my outfit!" "Let's have more stuff like this—it really nails this safety business down and clinches it." "I hope this means they're going to keep these safety programs alive from here on in." And so on.

More formal were the questionnaires handed out at the end of each course. They contained a list of yes-or-no questions designed to show how well the course had succeeded in its main objectives, were set up like the secret ballot. Sample questions:

Has this course helped you to understand and possibly solve some of your accident prevention problems?

Has your interest in accident prevention been stimulated?

Do you believe this course will be of future assistance to you?

Do you recommend that it be given to other supervisors?

How can it be improved?

Here again the answers were extremely encouraging, in some cases downright flattering: "I don't see how this course could be improved." "It's 100 per cent just the way it is." "My interest in accident prevention has been stimulated 100 per cent." "If possible, should be broadened to include employees under supervisory rank." And in almost every case the answer to all questions was an unqualified "yes!"

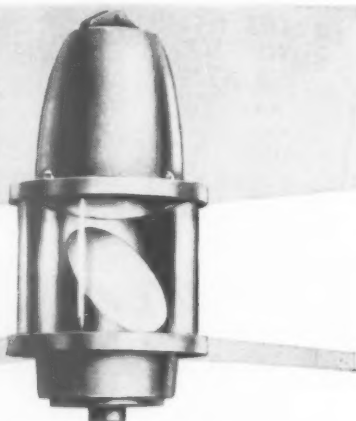
In summing up for Northern Natural and the AGA Accident Prevention Committee, Travis, Williams, Beaumont, Johnson and Papich were understandably pleased with the results of their course's shakedown run:

"There has always been a definite need for an accident prevention program in the gas industry, a program tailored to the industry and aimed at improving the accident prevention background and knowledge of supervisory personnel. The need for such a program has never been greater than

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it is today, and we feel that this course has proved to be the answer. Our reception certainly indicates that the course should be adopted by the industry as a whole. It affords a splendid opportunity for regional gas associations to hold clinical surveys of their high-frequency-rate members, isolate the causes, and institute immediate corrective action."

After returning to Omaha, Marv Travis reported a heartening volume of telephone calls and inquiries about the course from all over Northern Natural's system. Said he: "I can't recall a field training course in the history of the company which has won as much enthusiastic response from supervisory employees as has AGA's Accident Prevention Through Informed Supervision."

As a result of its successful trial run, the present overall format of the new AGA Accident Prevention Course will be permanent. The course's availability to the industry on a regional basis was announced at AGA's 6th Annual Accident Prevention Committee Conference at Hartford, Conn., September 15-16.

Better Than Your Ears

—From page 33

expensive, but cable lengths up to 100 feet can be used without requiring level corrections for the use of the cable. It cannot be used in or near a strong alternating magnetic field, since the microphone may pick up an electrical output not associated with the noise to be measured.

For high-level measurements involving high frequencies, there is a condenser microphone system, as well as an ammonium-dihydrogen phosphate crystal microphone commonly referred to as an ADP crystal microphone. The special condenser manufactured by Altec-Lansing, designated the Type 21-BR-180, permits measurements at levels up to 170 db. The ADP crystal microphone, manufactured by Massa Laboratories and designated Type M-141-B, permits measurements at levels up to 190 db. This is impressive when we realize that 194 db is one atmos-

phere of acoustic pressure.

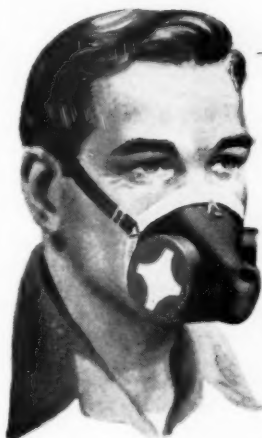
In the sound-level meter family, there is a very useful instrument, the sound-survey meter illustrated in Figure 2. This is a simple, inexpensive meter for indicating the level of noise and other sounds in terms of the standard reference level. It is intended for use in making preliminary field surveys without too

much equipment preparatory to making the complete analysis. Often much time is saved by using the small meter first, since it can point out the places which need further detailed study against those which need no further investigation.

Standard practice by consultants in the field is to calibrate their equipment prior to use. Two

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methods are available for field work which are convenient and quick. One method is to use the 115-volt, 60-cycle voltage which is most often available as a standard reference. This voltage is fed into the sound-level meter in such a way that the original gain setting of the amplifier as calibrated in the laboratory can be reset to compensate for any changes in batteries or components which

occur with time and use. This gain is easily set by a thumb adjustment on the panel.

The other calibrating system, illustrated in Figure 3, checks the microphone as well as the amplifier. This system consists of a small oscillator and calibrated loud speaker, both of which are easily carried to the site for measurement. A tone of 400 cycles at two volts is fed into the speaker

which is placed over the microphone. This makes a standard level of 85 db with a crystal microphone as read on the sound-level meter.

If this level is not read, then the thumb adjustment is changed to make the meter read properly. A similar procedure can be used on the sound-survey meter. This calibrator is useful in putting a calibrating tone on magnetic tape, for adjusting analyzers, and for putting calibrating marks on graphic-level recorders.

For analysis, two instruments are recommended. One is a narrow-band type filter of constant percentage bandwidth; the other is the octave-band type analyzer whose bandwidth is an octave wide, or the upper and lower pass frequencies are in a ratio of 2:1. For most noise measurements the combination of sound-level meter and the octave-band analyzer is used. Most noise investigations are based on data gathered with these two instruments.

Many times a more detailed record of the noise is wanted than is afforded by writing down readings of instruments on a form, and, in addition, it is often necessary to gather data over a long period of time. This is best accomplished by graphic-level recorders and magnetic tape recorders. The graphic-level recorder is very useful when gathering data over a period of several hours. The data is usually displayed on a paper tape.

Magnetic tape is quite useful for noises of very short duration. By recording the operation on tape and making a loop of the tape, so that it can go through the recorder again and again, analysis can be made at your own speed. Often this is the only way a good analysis can be made.

An impact noise is different and sometimes impossible to measure with the sound-level meter and analyzer alone. The present technique is to display the output of the sound-level meter and/or the octave-band analyzer on a long-persistence cathode-ray scope which has been calibrated previously. In this way limitations

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due to meter movements are eliminated.

A pair of earphones is recommended for use with sound measuring gear. Many times peculiar readings appear on the meters which are indicative of several different types of ills associated with electronic equipment. Often the trouble can easily be diagnosed by listening to the output of instruments.

Excessive circuit noise, microphonics, spurious oscillations, and hum are easily recognized and corrective measures can be taken often in the laboratory prior to leaving for the field. This procedure may sometimes save several hours and even days.

Techniques:

Figure 1 shows the position most generally used in taking sound measurements with the sound-level meter. When all that is required is to measure the sound-pressure level, this position is the quickest and most satisfactory.

When it is necessary to analyze the sound, as when gathering information to correlate with audiometric data in hearing-loss studies, it is well to place the equipment on a tea wagon or cart of some sort for ease in transportation. This also permits the observer to record his data. Many people have designed their own carts which have shock-mounted tables, rubber-tired wheels, and drawers to keep recording pads and calibrating equipment.

For those beginning sound survey programs, the question always arises concerning the minimum equipment necessary. The sound-level meter is a must, since it is the basic instrument, and the octave-band noise analyzer is strongly recommended. All noise studies related to hearing loss so far have used both instruments, and the results of these studies have been based on the octave-band data.

As an auxiliary instrument, the sound-survey meter will definitely save time on surveys. To make sure that this equipment stays in good working order, a sound-level calibrator and its associated oscillator are valuable.

The procedure for putting the instruments in operation is to plug the cord furnished with the octave-band analyzer into the "out" plug of the sound-level meter and into the "filter-in" plug of the analyzer, raise the microphone to the upright position, and turn the analyzer switch to on. Next adjust the sound-level meter attenuator until the meter

reads on scale—preferably as high above the zero decibel point on the meter as is possible.

By switching the band switch through the different bands and adjusting the attenuator to cause the meter to read on scale, the levels in the different bands are read. These readings are a combination of the sound-level meter attenuator setting plus the octave-



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band analyzer attenuator setting and meter reading. For example, if the sound-level meter were set at 110 db, and the analyzer had a minus 20 db setting with the meter reading plus 4 db, then the level for that band is 94 db.

It is best to stay as far away from the microphone as is possible, since there is a possibility that a significant change in the reading of the sound-level meter can occur for the higher frequency sounds.¹ The best way would be to use the microphone on the end of a cable so that neither instrument nor observer would affect the level.

Remote operation of the sound-level meter requires, in the case of a Rochelle-salt crystal microphone, the addition of a correction to make up for the change in observed level due to the effect of the cable. This can be done in two ways. One is to measure the air temperature, assuming that the microphone has stabilized at this temperature, and find the

correction from a curve supplied with the extension cable. This curve is a plot of decibel correction as a function of microphone temperature.

The other method is to observe the sound level on the meter with the extension cord in between the microphone and the sound-level meter, and again with the extension cord removed. The difference between the two readings is the correction to be added to the reading with the cable in place. The difficulty with this method is that it is necessary to have a reasonably steady sound for the reading, and that you must assume that the temperature of the microphone is the same for the measurements, as well as for the correction determined just after the sound measurements. An excellent way to obtain the steady sound is by using the sound-level calibrator as you would when calibrating the sound-level meter.

The technique of making meas-

urements at very high sound levels will require remote operation. Some consultants recommend remote operation on any sound level over 110 db, since microphonics can cause large errors in reading. (Microphonics is internal noise in the equipment as a result of jarring or vibrating the equipment.)

Supposing the level we wish to measure exceeds 140 db, which is the upper limit of the standard sound-level meter, then the use of special microphones is necessary. One of these special microphones, the Massa Model M-141-B standard microphone, can be used directly on the sound-level meter, replacing the Rochelle-salt type furnished with the instrument. The other, the Altec 21-BR-180 condenser microphone, must be used with the Type 1551-P1 condenser microphone system.

Because of the high levels at which these microphones can be used, they are well suited for

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measuring sound levels in engine test cells and near high-powered airplanes, and for measuring blast pressures near gunfire and other explosions. They also have such good high-frequency performance that they are particularly useful for measuring noise characterized by the high-whine of turbine blades and jet noise. Their small size makes it possible to place them near noisy parts of a machine, a procedure often valuable in tracking down noise sources.

In any discussion on technique, mention should be made on methods of recording data. A convenient form for gathering data is illustrated in Figure 4.² This form permits a sketch of the measurement setup, the recording of the equipment serial numbers, the recording of the gathered data, and remarks. It is used by the Industrial Hygiene Unit, Factory Inspection Division, Illinois State Department of Labor. The purpose of recording the information above is to facilitate the repeating of any measurement by the same operator or any other operator.

Limitations of Equipment

The standard for the Sound-Level Meter, as specified in ASA Standard, Z 24.3-1944, has tolerances which are such that it is possible for instruments of the same manufacturer as well as different manufacturers meeting the standards to have significantly different readings on the same sounds. It is difficult to predict just how much different the readings can get except on a pure

tone basis, since the reading depends considerably on the type of noise spectrum being measured.

In the region of speech frequencies, which are from 600 to 4800 cycles, tolerances are approximately ± 2 db, increasing at either end of the scale. At the high end of the frequency scale, around 8000 cycles, the tolerance is $+6$ db, -9.5 db, and at 25 cycles the tolerances are the same.³

Some investigators calibrate their equipment to compensate for these differences. For most purposes, in general survey work, the differences are not too important and can be minimized considerably by calibrating with the external sound-level calibrator.

In measuring impact noise, such as encountered around drop forges and punch presses, as well as intermittent noise of the pulsed variety encountered around riveting machines, the meter movement and the meter circuit place a further limitation on the accuracy of the sound-level meter. By using an oscilloscope to indicate the output of the sound measuring equipment this limitation is minimized. The big thing to remember here is that the sound-level meter and octave-band analyzer will read low around such noises, sometimes as much as 5 to 15 db.⁴

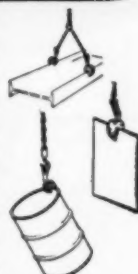
All electronic equipment is microphonic to some degree. The sound-level meter and octave-band analyzer suffer from this malady and it is up to the ob-

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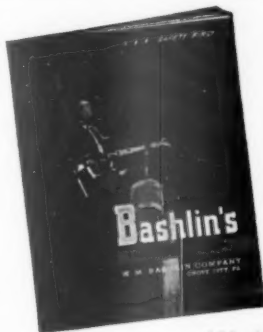
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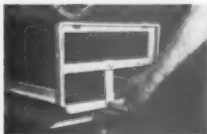
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server to recognize the symptoms. Considerable effort has gone into the mechanical design of the equipment to minimize this situation, but at levels above 110 to 115 db microphonics definitely becomes a problem.

It is recognized usually by an indication on the octave-band analyzer, even though the sound-level meter is disconnected from it. Similarly, the sound-level meter will have an indication when the microphone is removed. Also, the meter seems sluggish, when actually it should be quite lively and unsteady. The output of the sound-level meter will sound like a ringing bell when monitored with earphones.

Sometimes orienting the instruments so that they do not vibrate so much solves the problem. Sometimes holding the equipment by hand solves the problem, or resting it on sponge rubber may also help. The best solution, however, is to remove the equipment from the high sound field and measure the sound with a microphone at the end of the cable.

Circuit noise is another limitation. In the sound-level meter electrical noise occurs about 40 db below full scale. For example, if the attenuator is set at 100 db, circuit noise will begin about 70 db, as would be indicated on the octave-band analyzer. On the lower bands where bandwidth is limited the circuit noise is considerably lower. Actual figures are available from the manufacturer.

Many years of study and experience are required to become a good acoustical engineer. It does not, however, require years of experience to become proficient in taking sound level measurements. If good engineering and laboratory practices are followed, good useful information can be obtained by the inexperienced operator. Much more data is needed before any criteria can be set on safe noise levels.

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3. American Standards Association, *Standards, Sound-Level Meters for Measurement of Noise and Other Sounds*, Z 24.3-1944.

4. Charles R. Williams and Jerome R. Cox, "Industrial Noise Measurement—Science or Art?" *Proceedings of the Third National Noise Abatement Symposium*, held at Armour Research Foundation, Chicago, Oct. 10, 1952.

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A. P. G. Peterson and L. L. Beranek, *Handbook of Noise Measurement*, General Radio Company, 1953.

Proceedings of the Third Annual National Noise Abatement Symposium, National Noise Abatement Council, New York: October, 1952.

The Relations of Hearing Loss to Noise Exposure, Report by Exploratory Subcommittee Z 24-X-2 of the American Standards Association A 24 Sectional Committee on Acoustics, Vibration, and Mechanical Shock; Acoustical Society of America, Sponsor.

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The Harger Drunkometer, used nationally in industry, is the oldest and most widely used of the breath methods.

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Open Portland Office

Ebasco Services Incorporated, an engineering, construction and business consulting firm, has opened an office in Portland, Ore. William F. Rooney, who has been with Ebasco since 1950, will be in charge of the new office. He is a graduate of Massachusetts Institute of Technology and has had extensive experience in the utility and industrial fields.

Triple Duty

—From page 21

Insurance company, and, of course, they don't pay claims out of some private pot of gold. Eventually it comes out of our pockets. The insurance company tells us that their reserves for our accidents for a year amount to more than a quarter of a million dollars.

Of course, that isn't the complete cost of accidents. There is the disruption of the working crew every time an accident oc-

curs. We have our own medical expense, and the expense of safety work. We have the cost of safety appliances. In many cases we make up the difference in pay between what the employee's compensation payments and his regular pay.

It is safe to say that the cost of accidents for our company isn't far from \$400,000 a year, if we took everything into consideration. If my division is correct, that amounts to between \$80 and \$90 a year for each employee. The only thing that I can think of that is more wasteful is war. Certainly, we have an obligation to our stockholders to do everything we can to cut down this unnecessary expense and divert the money to better uses.

Aside from that, we have, I think, considerable responsibility to our stockholders from a public relations angle—to let it be known that our company is a good place to work, and that we are interested in public safety as well as occupational safety. From a public relations standpoint and as responsible members of the community, our employees should be leaders in safety.

Last, but certainly not least, we have a responsibility to employees. How can we discharge that responsibility?

Let's consider protective equipment. Of course, too much reliance on equipment and not enough on thinking can be disastrous. The job should be sized up first and the amount and types of portable protective equipment needed for adequate protection should be provided, making sure that no safety measure creates an additional hazard. And we have to keep looking for better devices.

Take safety glasses, for example. Back in 1945, the Long Island Lighting Company put into effect a program that requires most of the physical workers to wear safety glasses all the time while on the job. We furnish the glasses—spectacle type, with or without sideshields. If prescriptions are needed, these are furnished also. We hire an industrial optician to fit them correctly and check and refit them periodically so that the

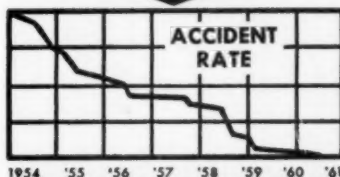
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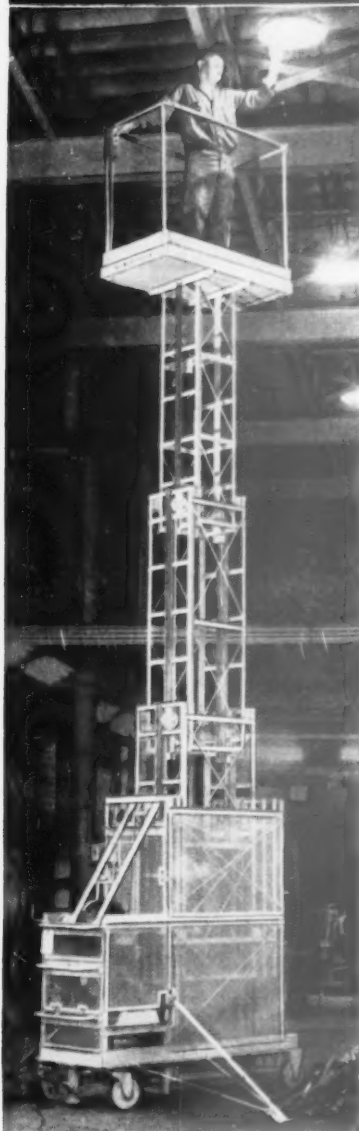
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men will have the maximum comfort and protection.

Now this has cost us money. Our original investment was about \$8,000. We are now spending close to \$10,000 a year for fitting glasses, repairs, replacements and new glasses. Some 3,500 employees are wearing safety glasses regularly. Glasses will not prevent all eye injuries, but every year we get definite evidence that the glasses have saved eyes. The cost is large but it is considerably smaller than the compensation and medical expense (and suffering) and other expenses that would have been incurred if the glasses had not been worn.

This is just one example. There are many other items of equipment, such as rubber gloves, rubber sleeves and safety shoes, and we consider it our responsibility to provide these.

In discharging our responsibilities to employees, the first step is to screen the people who apply for jobs. This is done at the employment office. Here we are able to more or less hand pick the people we feel will be best fitted to do the type of work to be done. We also consider the future possibilities of the applicant. He must pass a thorough physical examination, with particular attention to eyesight, hernia, bad backs, etc.

For those we hire there is an indoctrination course. This covers not only their future jobs but much other pertinent information which will be helpful to them, and immediate emphasis is put on safety.

Our next step is to train the man for his specific job. Then he is put under the supervision of a foreman or supervisor who continues his training on the job. Progress records are kept on each individual, and these are reviewed periodically. If the employee does not meet our requirements during the first six months, one or two things may happen to him. He may be transferred to another job for which the progress record forms indicate he is better qualified, or we may drop him from our payroll. However, we try to place any one who may be an asset

somewhere, especially if he indicates future possibilities.

The training continues step by step as the employee advances to higher level jobs. There is endless repetition of the fact that the right way to do a job is the safe way. At each step he is trained for the job he is moving into. He must know the safe operating rules for this and associated jobs. Company policy on safety is made clear.

So much for training and protective equipment. Let's review our records and see where most of our serious accidents occur. I think you will find that most of them occur on relatively simple, routine jobs. A simple job is not given the same respect as a tough job and quite often these jobs are not properly planned by supervisors. Good planning of every job must be emphasized. It must be a policy so well defined that there can be no misinterpretation.

If the safety program is to be effective, the supervisors must play an important part. They must recognize that the scope of their responsibility includes control of their respective groups and their performance in the field. Foremen and supervisors, being practical men, have their own way of handling human engineering problems. Various approaches, depending on the personalities to be dealt with, include instruction, explanation, reasoning and discipline.

Of course, it is easy to say, "Plan the job; stop the accidents!" But it isn't that simple. The first thing we must consider: Are the men who plan these jobs capable of doing the planning? Are they well-trained, far-sighted men who understand the risks of our business? Do they believe in accident prevention? Are they fully aware of our obligation to furnish our consumers continued service with safety?

In a few instances the answers may be questionable. It is top management's responsibility to analyze these situations, see that such supervisors are assigned to work where their training and experience are used to benefit themselves and the company. Of

course, management must assign to the supervisor properly trained men and necessary safety equipment to attain the goal we know can be attained.

What do we do when there is an accident? The accident is investigated thoroughly by a committee appointed for the purpose, and a complete report is made. The committee is composed of the supervisor of the section involved, the immediate supervisor of the man involved, an industrial relations division representative, and a safety division representative. The business manager of the union which represents the employee is also invited to be present when the facts are being determined.

Incidentally, it is only fair to say that we are getting very good cooperation from our I. B. E. W. Union in accident prevention and we are doing all we can to encourage that kind of constructive relationship. As a result of these investigations, the facts are

brought out and weighed. Recommendations for prevention of similar accidents are made, and the recommendations may include disciplinary action if there was negligence or violation of safety rules.

We have not found any magic formula for giving continuous electric and gas service with safety, but we think we can keep on getting nearer to our goal by

... A definite and emphatic accident prevention policy and program.

... Better planning and supervision.

... An open mind on protective equipment.

And keeping forever at it.

That's the road we're on. Top management supports that policy. Supervision is constantly working at it. The safety division makes recommendations for new or revised practices, equipment and procedures, conducts meetings, works with plant safety committees, makes inspections of work and equipment, and keeps us all keyed up to our accident prevention job.

Day by day, our employees are participating more wholeheartedly. We have hopes for a much better record, and we think we're on the right road.

Green Cross News

—From page 48

Public Health and Regional Medical Director of the Federal Civil Defense Administration, is coordinator for the series. University credits are given for successful completion of the course.

Municipal Safety Record

The Eastbay Municipal Utility District's 1,200 employees in the Oakland, Calif. area on September 20 had completed 1,000,000 manhours without a lost-time injury. The last lost-time injury involving an employee of the Utility District occurred on April 7, according to Louis J. Breuner, president of the District's board of governors.

Municipal Judge William J. McGuinness, president of the Eastbay Chapter, recently presented a plaque to President Breuner, in

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recognition of reaching the million man-hour goal. The record is the largest accident-free period in 31 years of operation in the District.

"Fire College" Program

The New Jersey State Safety Council sponsored an extended weekend program of outdoor training in fire fighting techniques, October 22-24, at the National Guard Training Center at Sea Girt. The subjects were: Salvage and Overhaul, Rescue and Evacuation, Flammable Liquid Control, Hose and Relay Practice, Pumps, Ladders and Life Nets, Fire Fighting Tactics, and Special Problems.

Manager George G. Traver of the Safety Council reports that his New Jersey Fire College, one of the Council's activity divisions, directed the training program.

Long Beach Manager

James A. Worsham is the new manager of the Long Beach, Calif., Safety Council. He succeeds Ralph Cissne, who resigned recently to enter another field of activity. In late September the City Council designated the safety organization as the official agent for a continuous program of safety education. The City Council appropriated the sum of \$12,500 to the organization to plan and carry out a year's intensive educational program throughout the Long Beach area.

The activities include school and home safety drives, posters, billboards, newspaper, radio and TV campaigns, timely bulletins, newsletters, etc. The first issue of the Council's official monthly publication, "News Letter" has appeared, featuring council news of general interest.

Foreman's Course in Stockton

The Industrial Section of the San Joaquin County Safety Council sponsored a four-session Foremen's Training Course, with classes running two hours a week. The series opened on September 20 and closed with a dinner and graduation exercises on October 26. Lectures and discussions included: Human Factors, Safety Orders, Compensation Laws and How to Review Acci-

dents, and the final session, Selling Safety. Council Manager Lovilla Lalor reported good attendance at the Council's first supervisory course.

Magic Valley Meet

The Magic Valley Safety Conference, sponsored by the Idaho Chapter, NSC, was held at Twin Falls, October 4-5, and featured a report and general discussion of industrial codes, along with general safety problems of industrial plants. A special fire prevention program, in line with the Fire Prevention Week Observance throughout the state, was presented. An interesting traffic safety session was held.

Paul F. Hill, in charge of Inventory activities for the Western States, the banquet speaker, discussed the Inventory for the State. The Safety Councils of Gooding County, Lincoln County and Blaine County, were cooperating organizations, along with official representatives from Buhl, Rupert, and Burley.



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Calendar Contest Winners For September

First prize in the National Safety Council's Safety Calendar Contest goes this month to Miss C. L. Hands, Pennsylvania Water & Power Co., Baltimore, Md. The theme in this contest was stop accidents—heed signs. Miss Hands' line was adjudged the best of all those submitted. It was:

*Heeding signs would have saved them
this fate.*

Second prize went to Joseph H. Cameron, Worcester County Electric Co., Worcester, Mass., for this line:

*Signs don't lie. Why defy what they
state?*

Third prize was awarded to Mrs. J. E. Beaudoin, Hooker Electrochemical Co., Tacoma, Wash., for the following line:

*Follow the signs or you'll follow their
fate!*

The September limerick was:

*Whizzer Young had a hot souped-
up crate
And a girl who thought Whizz was
just great.*

*So they'd speed and they'd neck,
Ended up in a wreck*

Thirty \$5 awards were issued to:

Ernest Case, U. S. Post Office, Akron, Ohio.

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Minimum 8 years accident prevention experience—4 years with insurance carrier, balance in drilling or oil field operations. Degree or equivalent training plus familiarity with oil handling codes required. Salary commensurate with training and experience.

Write giving full particulars regarding personal history and work experience. Please include telephone number.

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Mrs. C. T. Browne, Fellsmere Sugar Co., Fellsmere, Fla.

James M. Warner, Diamond Alkali Co., Edgewood, Md.

Miss Margaret Watrous, Hamden, Conn. (Individual Member).

J. R. Ross, American Oil Co., West Haven, Conn.

Mrs. Margaret Wolosin, Athenia Steel Co., Clifton, N. J.

Lloyd Ira Miller, Pennsylvania Power & Light Co., Allentown, Pa.

Jesse Massingale, Shelbyville, Ind. (Individual Member).

Mrs. A. R. DeLano, Haynes Stellite-Wrought Alloy Plant, Kokomo, Ind.

Mary Carter, Indianapolis, Ind. (Individual Member)

Florence Burrows, Green Bay Box Co., Green Bay, Wis.

Mrs. Arvid Gehrke, Wisconsin Telephone Co., Milwaukee, Wis.

Frank J. Napontek, Pabst Brewing Co., Milwaukee, Wis.

F. R. Dittoe, Kelley Island Co., Cleveland, Ohio.

Miss C. Jane Ruhl, Ewing-Von Allmen Dairy Co., Louisville, Ky.

Mrs. H. M. Jarvi, U. S. Steel Corp., Hibbing, Minn.

H. T. Orsborn, Elgin, Ill. (Individual Member).

Mrs. Dan Homan, Water Dept., Denver, Colo.

Mrs. Fred Gerhard, American Airlines, Knoxville, Tenn.

Richard Stephenson, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Stanley Clark, East Bradenton, Fla. (Individual Member).

Mrs. Norman Keith, Keystone Steel & Wire Co., Peoria, Ill.

Mrs. Ben Dibrell, Oklahoma Gas & Electric Co., Ardmore, Okla.

Mrs. Stephen J. Pettovar, U. S. Atomic Energy Commission, Washington, D. C.

Joe Del Santo, Phelps-Dodge Corp., Morenci, Ariz.

Lou Rubenstein, Illinois Institute of Technology, Chicago, Ill.

B. E. Mullen, Minnesota State Highway Dept., St. Paul, Minn.

Bruce C. Sibley, U. S. Steel Co., Ensley, Ala.

William Dilley, Dilley Mfg. Co., Cleveland, Ohio.

Harvey H. Hodapp, Naval Air Facility, Litchfield Park, Phoenix, Ariz.

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BURN!

PAIN...

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... the best and safest method for the "first aider" because he doesn't touch the patient!

QUICK, THOROUGH, PAINLESS, ASEPTIC...

Doctors agree that certain basic conditions are present in all burn cases. The "first aider" is qualified only to deal with the first three: Relieve Pain, Prevent Infection, Treat Shock. Spraying burns does this best. And the MSCO assortment of Burn Spray Kits is the largest ever offered: Americaine or Kip Antiseptic Oil in either compact Unit-Type Packets with Pressure Cartridge Spray or Complete Burn Spray Kits with Aerosol Dispensers; Foille and Hydrosulphosol Burn Spray Kits; Fire Department Kits. MSCO also supplies all standard burn ointments in unit form for first aid kits. See your MSCO distributor for a demonstration or write for details.



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Because *Setol* is specially compounded for the greater speed of *combination-machine-scrubbing*, it must and does work faster than average alkaline cleansers. *Setol* saponifies and emulsifies grimy oil and grease *instantaneously*. The wetting agent in *Setol* floats the oil for fast, easy, and thorough removal by the vac of a *combination machine* or with a separate vac unit. And because *Setol* stays fast-acting longer—does not spend its strength quickly as do ordinary oil and grease solvents—less is required to clean a given area. Thus *Setol* saves on materials and, by speeding the cleaning process, cuts operating time of the scrubbing machine . . . reduces labor costs . . . and saves on brushes. Best of all, *Setol* gets floors *oil-free clean!* Also acts as a disinfectant (contains pine oil), and leaves a pleasant, clean aroma.

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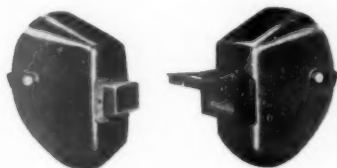
NEW SAFETY EQUIPMENT

Further information on these new products may be obtained by writing direct to the manufacturer or by circling the corresponding item number on the Reader Service Postcard.



Welding Helmets

These new fiber-glass welding helmets are available in both fixed-front and lift-front styles. The helmets have a narrow front to make it easier to work in tight places. According to the manufacturer, they are resistant to heat and moisture, withstand weld spatter, and hold their shape indefinitely. Headgears are made of plastic with cork-padded sweat band. Friction pivots may be adjusted by hand while the



helmet is in use to hold it in any position or make it float down without jolting stops.

Jackson Products, Inc., Warren, Mich. (Item 1.)

Dispersing Floating Oil

Oil floating on harbor and coastal waters has long been recognized as a serious problem for the marine industry. A new oil spill solvent called "Gamosol" is said to be economical and effective. It is an amber-colored liquid compound, non-toxic, non-explosive, and may be used freely without precautions for the protection of skin, clothing or equipment. Flash point is 200° F., and it is soluble in both oil and water in any proportion.

The product is applied under pressure through a small jet nozzle. When "Gamosol" contacts the floating oil, it becomes soluble with the oil, creating an emulsion with the water on which it floats. Once combined with oil, agitation causes the mixture to disperse and emulsify in the water. The easiest method of agitation is with a jet of water from a

small fire hose or by the action of a large propeller. In general, one part of "Gamosol" will disperse from six to ten times its own volume of heavy petroleum oil.

According to the manufacturer, this product may also be used to dissolve oil spills on ships' decks, docks, pilings, etc. Available in 5-gallon cans and 55-gallon drums.

Gamlen Chemical Co., 4 Midland Ave., East Paterson, N. J. (Item 2.)

Winterliner for Hard Hats

A heavy duty winterliner called the "Arctic" has been designed specifically for wear under safety hats, caps and helmets. It is made of close-woven wool-knit, and protects the head, neck and face, covering everything except the eyes. The



front portion slips over the mouth when not needed to protect the nose, and checks.

E. D. Bullard Co., 275 Eighth St., San Francisco 3. (Item 3.)

Waste Receptacle

This newly designed waste receptacle provides all around accessibility and eliminates stopping or standing in line to throw away handful of waste. The receptacle is finished with white baked enamel, and has a

wrap around stainless steel base. There is a rubber gasket around



the top opening. The receptacle measures 15" in diameter, and 35" high.

Bennett Manufacturing Co., Alden, N. Y. (Item 4.)

Sole for Safety Shoes

Called the "Vul-Cork Micro-Cell Cushion Neoprene," this new outer sole is a combination of neoprene and cork, having millions of tiny closed cells filled with nitrogen.

Cellular construction gives a structure that will not absorb oil, water and other foreign matter. According to manufacturer, the sole is light, and provides good resistance to slipping. Initial production of this new sole is available in 21-iron flat with a buffed brown surface.

Vul-Cork Division, Cambridge Rubber Co., Taneytown, Md. (Item 5.)

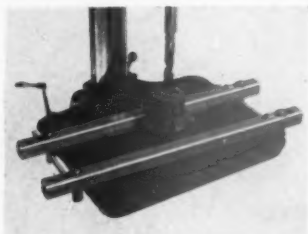
Vise for Drill Presses

The "Dril-Lox" is a drill press accessory said to have time-saving and safety advantages. Two advantages cited by the manufacturer are:

- (1) drill torque on the work piece automatically locks the vise, and
- (2) work pieces in the vise find

their own center since they are free-floating.

The "Dril-Lox" is quickly fastened to the drill press table by spinning two simple thumb nuts. Work then can be inserted between



the rails and floated to the spindle. No adjustment is required before drilling duplicate pieces, and the vise can be slid off the table in an instant. The vise holds irregular-shape castings, jig work, as well as small pieces. Work can be drilled, reamed, tapped, spot faced, in the unit. Ease of setting up avoids the dangerous but commonplace shop practice of hand reinforcing C-clamps and straps.

Price and Rutzebeck, 22150 Meekland Ave., Hayward 177, Calif. (Item 6.)

Fells Trees Mechanically

First tests of a new hydraulic wedge for felling trees have just been completed. The device, called the "Hydra-Wedge," weighs approximately 20 lbs. and measures 24" long. It is said to replace the usual sledge hammer and numerous steel and wood wedges heretofore required. It is easily portable, and may be carried by a sling over the shoulder.



The "Hydra-Wedge" is a completely integral unit consisting of a manually-operated hydraulic pump, a power cylinder and a tapered wedge attached to the end of the piston rod. The wedge is sheathed on each side by two thin blades

hinged to the main cylinder casting. In use, these blades are inserted in the saw kerf on the trunk; pumping the handle then forces the wedge between the blades and effects of lifting forces up to 90,000 pounds, sufficient for tipping even the largest trees. Design of the tool overcomes any tendency to eject the wedge from the kerf. No straps or other holding devices are required around the tree trunk.

Tree shock, such as developed by sledge hammers, is eliminated. Possibility of injury from falling branches, etc., is greatly reduced, and directional control in felling is also improved.

Hufford Machine Works, Inc., 1700 East Grand Ave., El Segundo, Calif. (Item 7.)

Snow Plow Attachment

This new snow plow is designed for use on all Clark pneumatic-tired fork-trucks except the 1,000 lb. "Trucloder." The plow is a non-hydraulic attachment which is ad-



justed manually to several blade angles, and which is mechanically adaptable to uneven ground surfaces. The ballast box, mounted directly over truck forks, may be loaded with any kind of material to provide drive-wheel traction.

The blade assembly, 3/16" thick and 23 1/2" high, is attached to the plow mounting assembly by a single vertical pin around which the blade may be rotated for angle adjustment. Pushing blocks, located at the base of the plow assembly, enable the plow blade to exert maximum force at the base of the snow load, where resistance is greatest. A compression coil spring acts as shock absorber.

The plow is readily detached as a unit and requires no tools for mounting or dismounting. Two metal legs at the base of the plow assembly permit it to be stored in an

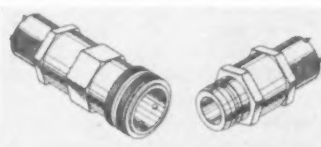
upright position. The plow may also be used for grading, back-filling and similar light yard maintenance operations.

Industrial Truck Division, Clark Equipment Co., Battle Creek, Mich. (Item 8.)

Hose Coupling

Called the quick-seal leak-proof coupling, this new unit is now available in heavy-duty models for high-pressure, heavy-flow applications in the steel, oil, chemical, construction and other industries.

The Titeflex quick-seal coupling is based on a simple construction principle which makes the hose line leak-proof the moment the nipple is seated in the coupling body, and



seals it tighter, the higher the pressure. In addition, the coupling has a full-swiveling feature that prevents hose kinking, insuring longer hose life and permits rapid hose attachment. The illustration shows the two ends of the coupling when the coupling is disconnected. When the nipple is inserted into the coupling body, it is stopped by the retainer balls. Withdrawing a collar on the coupling body permits the nipple to force the retainer balls outward, freeing the nipple to seat fully in the coupling. Releasing the collar forces the retainer balls into the nipple's outer groove, thereby locking the nipple securely in coupling-closed position.

All bearing surfaces in the coupling are heat-treated and ball bearings and springs are made of stainless steel.

Titeflex, Inc., 500 Frelinghuysen Ave., Newark 5, N. J. (Item 9.)

Floor Polish

"Legsure" is described as a "no buff, no scuff" safety floor polish. The manufacturer recommends it for all types of resilient floors, and claims that the polish dries to a long-lasting lustre without buffing. It is said to resist scuffing even under the daily punishment of shifting furniture, high heels and heavy workmen's shoes. Underwriters' Laboratories lists the product as slip-resistant.

Walter G. Legge Co., Inc., 101 Park Ave., New York 17. (Item 10.)

Folding Horse

The Federal "Handy Horse" is said to have hundreds of uses in

industry and the home workshop. It is strong and sturdy (rated capacity 500 lbs. with better than 2 to 1 safety factors), yet weighs only 10¼ lbs. The flexible design ad-



justs automatically to uneven surfaces of yards or floors, and the horse is said not to wiggle or wobble under load.

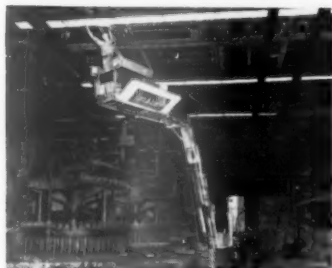
For storing, it folds to a size less than 6" square by 42" long, and may be easily stored or carried. The unit comes completely assembled, and there are no parts to remove or tools required to fold it.

Federal Aircraft Works, 3456 N. Washington, Minneapolis 12, Minn. (Item 11.)

For Overhead Maintenance

The "Life-A-Loft" model 19-6 permits one man to reach points as high as 25 feet over the floor and up to 16 feet in front of the unit. The operator rides this battery-powered platform lift truck to the job location; then using push buttons, raises the platform to the lights, piping, girders or other overhead maintenance jobs. Up to 500 lb. loads are safely carried on the platform, permitting replacement parts, cleaning materials and other equipment to be carried aloft.

The "Lift-A-Loft" is easily maneuvered under, around or projected over obstructions to reach the de-



sired objective in 40 seconds or less, according to its manufacturer. Use of this unit in factories for washing and group replacement of overhead lights provides substantial labor savings, prevents downtime, and minimizes spot replacements.

This unit has a four-section, telescopic lift with a non-tilt, riding, sliding platform. Over-all height in

traveling position is only 7' 3"; over-all width 35". A day's supply of washing water is carried in the ballast tank and can be pumped to washing tanks on the platform to make the "Life-A-Loft" self-sufficient.

Mitchell Maintenance Co., Inc., P. O. Box 1225, Muncie, Ind. (Item 12.)

Aluminized Apparel

This fire repellent fabric is said to provide protection in temperatures up to 2500 degrees F. Called "Fyre-Armor," this fabric is available in suitings and protective equipment, and has been devised by a patented process that fuses flame resistant fabrics to metallic layers and then topped by aluminum foil. "Fyre-Armor" suits weigh as much as an ordinary suit or coat—from 5 to 10 pounds—and offer ease of movement and mobility in action. No



special underclothing or additional protective equipment need be used in conjunction with them.

This lightweight fabric can be sewn into tailored garments as well as into gloves, protective covers, tarpaulins, tents face shields machinery covers, and other items.

Far-Ex Corp., 75 West St., New York. (Item 13.)

Bottle Rests

"Agilene" bottle rests are made of polyethylene, and are said to have advantages over ceramic bottle rests because of their resiliency. Manufactured of one-piece molded polyethylene, they may be used for heavy reagent bottles, and are to be resistant to chemicals, including hydrofluoric acid.

"Agilene" bottle rests are currently available in two sizes, 4" and 6" diameter. These sizes will handle small laboratory reagent bottles as well as standard 5 pint shipping containers.

American Agile Corp., P. O. Box 168, Bedford, Ohio. (Item 14.)

Face Shields

A new open hearth face shield for use in steel mills and general industry where the worker's face and head must be protected from ex-

treme heat conditions has just been announced. The shield consists of a reinforced fiber glass frame, a



ratchet type adjustable headgear, and a large size copper screen window. The shield is also supplied with a hood to cover the top of the head and the back of the neck, where this additional protection is desired.

Safeguard Industrial Equipment Co., 271 Verona Ave., Newark 4, N. J. (Item 15.)

Dry Chemical Extinguisher

This new 5-pound Pressurized dry chemical fire extinguisher is designed for quick, easy, one-hand operation, according to its manufacturer. It is said to provide accurate aiming control, and will completely discharge its contents in less than 12 seconds by use of pressurized air or nitrogen. The new angular diffuser nozzle spreads the chemical in a flat, dense stream, 10 to 12 foot long, and 60° wide. This blanket-like stream lays a flat pattern of powder level with the base of the fire.



The extinguisher is made with all-brass precision construction. The valve assembly and pick-up tube unscrew as a unit from the shell to simplify inspection, cleaning and recharging. The large valve unit opening in the dome also serves as the "filler" opening. The extinguisher has Underwriters' Laboratories approval, and is recommended for Class B and C fire hazards—flammable liquids, gases, and live electrical fires.

The Fyr-Fyter Co., 221 Crane St., Dayton, Ohio. (Item 16.)

White Line Marker

This low-priced traffic marker for marking lanes in plants, loading platforms, parking areas, storage rooms, is operated on a spreader principle. It will apply "zone" paint to any firm surface, and may be operated close to piles material or other projections. After use, the spreader should be submerged in kerosene to keep it clean and ready

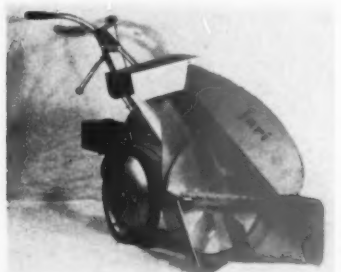


for use. Spreaders are available for marking line widths of 1", 2", 3" and 4".

Industrial Products Co., 2787 N. Fourth St., Philadelphia 33. (Item 17.)

Rotary Snow Thrower

A new heavy-duty snow thrower has been designed for big snow removal jobs around factories, institutions, commercial firms and large estates. Called the "Champion," this rotary-type machine will do



the work of 10 men with hand shovels, according to the manufacturer. It will propel itself at 60 yards-a-minute, while clearing a swath 20" wide through heavy, packed or even slushy snow without stalling or clogging. Powered by a 2½ hp. gasoline engine, the "Champion" operates on the same principle as giant rotary plows used on railroads and highways, which

throw snow, rather than blow it. A special rotating "raker bar" that chews up packed snow plus a wide-open front end that won't clog in slushy snow, enable the plow to clear away all types of snow.

Jari Products, Inc., Minneapolis 8, Minn. (Item 18.)

Valve for Pressure Lines

With this new connector, it is possible to connect and seal gas, air or liquid pressure lines to standard openings for testing vessels, appliances, systems or assemblies. The new unit is called "Connecto-Valve," and the manufacturer states that only 1 or 2 seconds are required to seal an opening and begin the flow of gas, air or liquid. Inserting the valve into an opening and depressing the cam lever simultaneously expands the connecting seal and opens the valve, effecting a leak-proof seal and releasing a full flow of gas, air or liquid into the vessel or assembly under test. Withdrawal of the unit automatically closes the valve.

The valve body and component



parts are made of corrosion resistant materials and includes replaceable neoprene seals. Inlet connections are tapped into valve body for 3/8" pipe pressure lines. "Connecto-Valves" are available for sealing 1/2", 3/4" and 1" pipe openings.

Mechanical Products Corp., 168 N. Ogden Ave., Chicago 7. (Item 19.)

Magnetic Floor Sweeper

This light weight, magnetic floor sweeper removes nails, wire and other magnetic materials from roads, streets, airports, construction jobs, or in machine shop and factory aisles.

The Homer magnetic floor sweeper consists of a permanently energized Alnico V magnet assembly, mounted on semi-pneumatic tires, with ball bearing wheels. Handles are of tubular steel with plastic handle grips. Handles are adjustable to two positions: for manual use, or for towing with truck or other vehicle. The floor sweeper

rolls freely and is easily maneuvered.

The manufacturer states that there is no danger of shock to em-



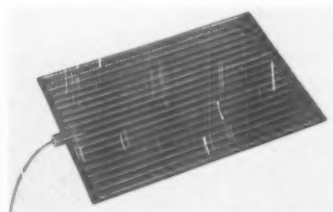
ployees, or of fire or explosion when the sweeper is used in plants having flammable or explosive products. It may be used in either wet or dry locations. Automatic stripping device makes it easy to unload recovered tramp iron without bending or stooping.

Homer Manufacturing Co., Inc., Department 199, Lima, Ohio. (Item 20.)

Heated Floor Mat

This light weight foot warmer is said to consume only as much power as a 100 watt light bulb, is designed for use in locations where workers must stand in one position on cold concrete floors.

The mat is 14" x 21" and weighs approximately 5 pounds. It is made of rubber and is small enough to be moved from machine to machine or from desk to desk.



Interstate Rubber Products Corp., 908 Avila St., Los Angeles 12. (Item 21.)

Anti-Slip Sole Pattern

Originally developed for plane handlers on slippery decks of aircraft carriers, this new sole is now available on a variety of boots,



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shoes and overshoes. According to the manufacturer, the Navy has adopted the tread as standard and has used it on more than a million pairs of flight deck boots and over-



shoes. The sole is made of oil and heat resistant neoprene. The anti-skid tread design, coupled with neoprene's oil and chemical resistance, make the sole ideal for chemical plants, gas stations, garages, oil tankers, fishing boats, petroleum refineries, paper mills, food processing plants—anywhere that floors are wet and slippery and chemicals or oils are present. Called the "Tri-Vac" sole, it is now available on safety work shoes manufactured by a number of manufacturers.

E. I. du Pont de Nemours & Co., Public Relations Department, Wilmington, Del. (Item 22.)

Adjustable Dock Board

Manufacturers of Herco adjustable dock boards have announced the availability of a new flush type dock installation that eliminates



controls that project out from or above the dock surface. Absence of levers is said to permit easy trucking across and in all directions over the surface of the board.

According to the manufacturer, this design allows for easy approach, with hand trucks, dollies or power loaders, and minimizes false starts and back-ups.

Karl A. Herman Co., 412 Fuller, N. E., Grand Rapids, Mich. (Item 23.)

Automatic Ground Control

The "Safe-T-Ohm" automatic ground control, Model G-5 is used to safeguard the processing and handling of flammable materials from accumulation of electrical charges that might cause fire or explosion. Gasoline and chemical truck, tank car and tanker loading and unloading operations are indicated applications. This unit, according to its manufacturer, automatically halts processing operations until satisfactory ground connections are made.

Operation of loading platforms, pumps and other equipment is contingent upon bonding of all equipment to ground. Only light beams are used to connect the power circuits to the loading equipment and thus there is no possibility of a leak from the power circuits charging any part of the equipment involved in the loading operation. When resistance to ground is in excess of the maximum allowable resistance of 5 ohms, this unit prevents loading or processing from being commenced or continued.

The Hewson Co., Inc., 443 Broad St., Newark 2, N. J. (Item 24)

All-Weather Cab

An all-weather molded steel cab is now available for all models of the Michigan Tractor Shovels built by the Construction Machinery Division of Clark Equipment Company.

Designed for easy field installation, the heavy-duty cab has all around and overhead vision through safety glass windows set in rubber molding. The rear section, which has sliding windows, rolls freely on track and can be removed in 5 minutes. The glass in the overhead window is tinted to eliminate sun glare.

The movable rear section of the cab will lock open or closed in any position. A quick release mechanism frees the lock when the cab is



pulled back to open.

The inside of the cab is sprayed with an insulating compound to

deaden noise. The cab weighs approximately 275 pounds, and may be equipped with a heater and defroster unit.

Clark Equipment Co., Construction Machinery Division, Battle Creek, Mich. (Item 25.)

Removal of Tramp Iron

Gravity flow chutes handling fast moving materials such as grain, wood chips, coal, chemicals, cereals and other food products, require positive tramp iron removal to insure continuous protection from damage to processing machinery and to equipment, protection from product contamination, and for insuring a fire-proof, explosion-proof operation.

A new series of gravity flow and pneumatic hump Alnico non-electric



tric magnetic separators are now available for this purpose. The "Memco" gravity flow humps provide constant protection against these dangerous hazards. Installed in cut-away sections of chutes, these non-electric magnets grab and hold the tramp iron until it is later removed through the hinged cleaning doors of the magnet housings. The material flow, falling vertically or at an angle of not less than 65 degrees, passes within the flux field of the first magnet where most of the tramp iron becomes trapped. Then it passes on across the second magnet where any remaining tramp iron is trapped.

Constructed of heavy gauge steel, the gravity flow hump magnets range in size from 4" to 48" and are available in 4 strengths. The entire unit is also available in stainless steel, and adaptors are available for joining the unit to any shaped chute, pipe or outlet.

Magnetic Engineering and Manufacturing Co., Clifton, N. J. (Item 26.)

Chemical Motor

The development of a motor specifically designed for chemical services has been recently announced. It is totally-enclosed and corrosion

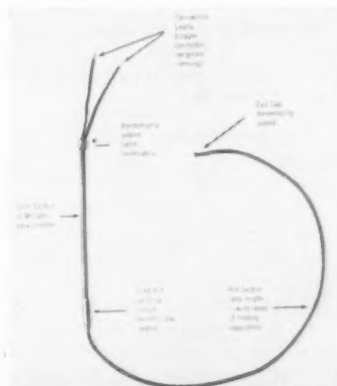
U. S. Electrical Motors, Inc., Box 2058,
Los Angeles 54. (Item 27)

This new audiometer may be used for accurately testing hearing loss. Weighing less than 11 pounds, its circuit contains 75 per cent fewer component parts than most audiometers. The Beltone audiometer has only one tube and one voltage regulator. It is carried in a self-enclosing case, and a sliding panel protects the face of the instrument when not in use. Because of its simplified circuit, the new instrument is said to be capable of main-



Belton Hearing Aid Co., 2900 W. 36th St., Chicago. (Item 28.)

"Heatflex" can be formed to any surface—tanks, pipes, valves, switch-



Continental Electric Equipment Co., Box
1055, Cincinnati 1, Ohio. (Item 29.)

A black and white photograph of a man in a suit standing next to a large, dark, rectangular object, possibly a piece of equipment or a display case. The object has some text on it, including "U.S. AIR FORCE" and "RESEARCH". The man is standing to the left of the object, looking towards the camera. The background is dark and indistinct.

Mesabi Sign Co., 119 First St., North,
Virginia, Minn. (Item 30.)

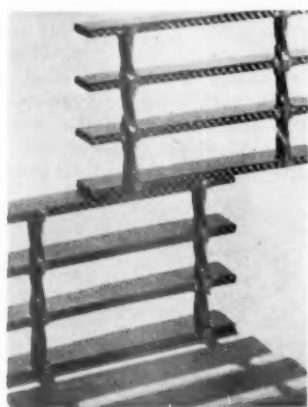
National Safety News, November, 1954

of 1½" between all walls. It has three steel shelves and a double door for convenient access. The doors are equipped with a spark-proof, 3-point lock with key and all closure contact points are non-sparking. The door sill is raised 2" above the bottom of the cabinet and is liquid tight to this point. The words "Flammable—Keep Fire Away" are stenciled in large letters on the doors. Provision has been made for vapor venting. Overall dimensions are 43" wide by 65" high by 18" deep. Net weight is 380 lbs., and finish is machine gray.

The Protectoseal Co., 1920 S. Western Ave., Chicago 8. (Item 31.)

Non-Skid Grating

This electroforged grating, called "Furro-Grip," is recommended for use in areas where service conditions are likely to include skid hazards. As illustrated, knurled bearing bars are combined with twisted cross bars, providing a smoother walking surface than serrated bars and an extra margin of safety over



square bar grating. The grating is manufactured from .20 maximum carbon steel in standard sizes from ¾" to 1½" to 2¼" by 1½". Load-bearing characteristics are similar to standard types of gratings manufactured by Blaw-Knox.

Blaw-Knox Co., 2092 Farmers Bank Building, Pittsburgh 22. (Item 32)

Brackets for Floodlights

The "Servisafe" wall and wood pole brackets are designed for ground level luminaire servicing. Incorporating the patented Thompson disconnecting and lowering hanger mechanism, these units eliminate climbing and electrical hazards. In addition, the unit design provides for a wide range of application and permits greater luminaire mounting heights for improved area illumination. To lower a luminaire

mounted on a "Servisafe" bracket, the workman opens a lockbox mounted near the wall or pole base and attaches a separate handline to operate the cable. He then disconnects the two hanger members with a slow pull and a quick release on the handline and lowers the fixture to ground level. Because the live contacts remain in fixed position upper member, the lowered luminaire is "dead" and presents no electrical hazards. After the fixture is serviced, it is returned to operating position and automatically re-seated by means of the handline.

Thompson Electric Co., 1199 Power Ave., Cleveland 14, Ohio. (Item 33.)

Laminated Wood Ladder

A new laminated wood ladder, said to be more than twice as strong as the standard type having solid wood beams, has been developed.

This new ladder's strength is due to its composite wood beam construction, made possible by modern glues and gluing techniques, and applied for the first time, to ladder construction. It is similar to that used by fabricators of glulam wood arches and trusses for the construction industry, and by shipbuilders producing modern wood mine-sweepers and other marine craft. Recently conducted tests at the Teco Laboratory showed that the laminated beam ladders supported 1,510 pounds before one hickory outer layer broke. Another laminated beam ladder, having greenheart instead of hickory, and oak outer layers, supported 1,580 pounds before showing signs of failure.

In addition to establishing strength factors, the tests showed that unexpected breaking is extremely unlikely in the laminated ladder, as its glue lines interrupt the continuity of wood grain in its cross section. Both laminated beam ladders gave loud warning sounds of cracking before outer layers, only, broke, then continued to support greater loads for a longer time than would be required in actual use.

Timber Engineering Co., 1419-18th St., N. W., Washington 6, D. C. (Item 34.)

Adhesive Stick Pad

Particularly designed to allow substantial movement of wounded joint areas, such as the finger and



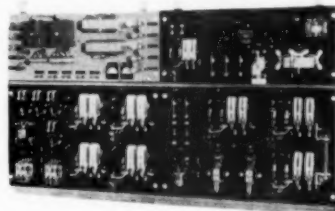
knuckle sections, this adhesive stick pad is said to maintain elasticity and original dressed form under wet, greasy and oily conditions. "Pressoplast" stick pads are sterile-wrapped for hygienic protection, and leave no tell-tale adhesive film. This new product is manufactured by the maker of "Flex Aid" knuckle bands and "Presso Lastik" elastic adhesive tape.

Medical Fabrics Co., Inc., 10 Mill St., Paterson 1, N. J. (Item 35.)

Magnetic Hoist Control

This new hoist control for use with wound rotor motors combines the characteristics of the eddy-current load brake and the regulating magnetic amplifier to obtain speed-torque curves previously unavailable on A-C hoists.

The excitation of the eddy-current load brake is provided by the magnetic amplifier whose output in turn is dependent upon the balance between the field strengths of the amplifier's reference field as established by the position of the hoist



master switch, and the amplifier's signal field as established by the actual speed of the hoisting motor. The regulating action thus provided by the magnetic amplifier affords a set of specific lowering speeds virtually unaffected by changes in the hook load.

The eddy-current crane brake also aids the hoist's magnetic holding brake in decelerating the load each time the hoist is stopped, thus prolonging the lining and wheel life of the holding brake. Lowering speeds are adjustable by means of slide wire rheostats on the control panel, making unnecessary the adjustment of the secondary resistance of the wound rotor motor. The controller also provides a choice of either one of two first point lowering curves by simple change of one electrical connection.

Cutler-Hammer, Inc., 395 N. 12th St., Milwaukee 1, Wis. (Item 36.)

Reinforced Grinding Wheels

A new safety feature for resinoid high speed wheels for portable grinders has just been announced. Called "Grind-Away," this grinding

wheel has safety rings embedded directly in the usable portion of the wheel. These rings have approximately the same tensile strength as steel and do not interfere with the grinding operation inasmuch as they abrade away as the wheel is used. This makes it possible to re-inforce the wheel as well as the back of type 11 flaring cups, something that has never before been practical. Available only in straight wheels and type 11 cups for portable grinders at present.

Colonial Abrasive Products Co., Conshohocken, Pa. (Item 37.)

Cold Cathode Lamp

This new cold cathode fluorescent lamp, having the electrode concealed in the 25mm glass body of the lamp, is said to eliminate the conventional electrode which is usually painted out at the end of the cold cathode lamp. The lamp is also equipped with clover leaf contacts.



Two advantages are claimed: (1) improved appearance and the use of clover leaf contacts which permits fixture manufacturers to use the same fixture bodies for either slim line or cold cathode lamps, and (2) the overall advantages of cold cathode lighting over hot cathode—higher quality lighting at less cost, less maintenance expense, louvers or diffusing screens are not required, and long life. The complete absence of filaments in these lamps makes them ideal for radio or radar installations where radio interference must be avoided. Cold cathode lighting is also said to cause less eye-strain because of reduced glare and uniform light distribution. This new lamp is identified as the Voltarc No. EC, and is available in standard 8 foot lengths.

Voltarc Tubes, Inc., 44 Cross St., Norwalk, Conn. (Item 38.)

Conductive Flooring

A recently developed 1/4" thick flexible Portland Cement conductive flooring can be bonded to existing cement finish to form a durable, easy-to-walk-on flooring meeting the safety requirements of NFPA. For industrial use, this flooring comes in plain black and in black with a green conductive plastic finish, and green conductive sealer. The same basic flooring, designed

in terrazzo, is installed over old style terrazzo, ceramic tile, quarry tile and cement finish, in hospital operating suites to bring them into conformity with the safety recommendations of the National Fire Protection Association.

Federal Flooring Corp., 82 West Dedham St., Boston 18, Mass. (Item 39.)

Vibration Meter

The Carometer is a pulse voltmeter and as such may be used in conjunction with different types of transducers to measure the peak displacement, velocity or acceleration of a transient vibration.

Insurance engineers have long been interested in vibration problems, but it was not until exhaustive studies by the U. S. Bureau of Mines led to the formulation of a "damage index" that vibration effects could be predicted with reasonable accuracy. A vibration consultant may now determine, with the aid of instruments, whether vibrations transmitted through the earth and structures will cause damage. The breadth of the field of vibration analysis may be judged from a consideration of the variety of problems encountered, ranging from effects of heavy machinery to effects from blasting operations.

The Bureau of Mines has prepared tables (bulletin 442, Seismic Effects of Quarry Blasting, pp. 66-67) which furnish a ready index to possible damage effects from blasting. Peak acceleration, read in g's on the Carometer, may be correlated with the tabulated data given in the bulletin so as to show whether the blast effect at the site measured is of sufficient intensity to be considered safe, to use caution, or if damage is possible. The meter, graduated from 0 to 10 g's, registers the maximum acceleration received by the pick-up unit and retains the reading until the operator manually resets the meter to zero indication.

The Victoreen Instrument Co., 5806 Hough Ave., Cleveland 3, Ohio (Item 40.)

Classifier Magnets

According to its manufacturer, maintenance savings in tin plate classifier operations, together with gains in speed and safety, have resulted from the substitution of non-electric permanent classifier magnets to replace electros.

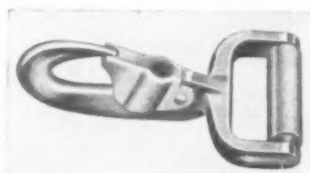
Two inherent characteristics of the Eriez Alnico V magnets are credited for this performance record: (1) the permanent magnets are self-energized, hence have no wires or controls to develop short-circuits,

no electro coils to burn out, and (2) the permanent magnets exert more strength than many of the electros they replace, hence fewer magnets required. Tests have shown that even under severe vibration, the Alnico elements lose less than .02 per cent of their power in 20 years. The aims of increased potential speed and safer operation are also served by permanent magnets. Because the units are stable and trouble-free, and their strength is constant, more positive control and braking action is assured. The importance of this is obvious when one considers that sheets commonly enter the classifier at speeds of 650 fpm, and the magnets must control and slow down the sheets, from one conveyor belt to another, until they are stopped by the time they are piled.

Eriez Manufacturing Co., Erie, Pa. (Item 41.)

Safety Strap Snap Hook

This new snap hook has a pointed nose so designed that it is possible to snap the hook over the curved part of a "D" ring from any angle without interference or binding. Drop-forged from mild steel, the "needle nose" feature permits the entire undersurface of that part of the hook which projects into the keeper to be in contact with the seat



of the keeper. This design, according to the manufacturer, tends to eliminate the possibility of a false "hang-up" of the snap when engaging the "D" ring, and also makes it easier to disengage the snap.

R. H. Buhrke Co., 1403-11 West Congress St., Chicago 7. (Item 42.)

Drum Handling Device

The "Rock-Up Drum Rack" is designed to provide sufficient leverage to permit one man to handle heavy drums with comparative ease and without risk of injury, according to the manufacturer. The all-steel racks are heavily constructed and can be assembled quickly. The two rockers are formed from welded steel pipe, and are fitted with adjustable steel drum hooks. The end cross piece is a solid bar to which are welded two clips that slip under the bottom chime of the drum. The

handle can be collapsed or expanded from the frame, or removed. Steel rollers are optional equipment.



With the drum in place for draining, the drain height is 18" with rollers; 17" without.

Baker-Ross, Inc., 602 W. McCarty St., Indianapolis 6, Ind. (Item 43.)

Nutritional Supplement

Called the "Selson Cocktail," this new product is said to assist in overcoming fatigue when used as a between meal diet supplement. Available in either an orange or tomato juice base, this drink contains primary-grown Brewer's yeast, which the manufacturer states supplies 17 of the natural B-complex



vitamins, 14 Amino acids and 9 important minerals. This beverage is available in 5 ounce tumblers and one-gallon jars.

Orchard Products Co., 209 South Green St., Chicago 7. (Item 44.)

NEWS ITEMS

Modernization of the Alan Wood Steel Company's 84-inch plate mill, under way for several months, has been completed and the mill is again in operation. The plate mill renovation involved additions to existing buildings and installation of new equipment at a cost of approximately \$3,300,000. The modernized mill will increase plate production by about 20 per cent.

One of the outstanding features

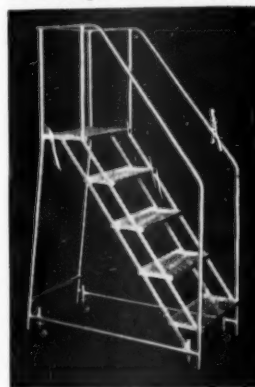
is a new 55-foot rotary hearth slab heating furnace, the first to be installed in a plate mill operation. Other features are new shearing facilities, a new scarfing yard, a high-pressure descaling system, new mechanical side guards at mill stands and a new four-high cold roller-leveller. According to the president, John T. Whiting, modernization will provide plates having flatter surfaces and more accurately sheared edges, as well as step-up deliveries. This company, located in Conshohocken, Pa., is the manufacturer of A. W. Algrip, an abrasive rolled steel floor plate and A. W. Super-Diamond Floor Plate.

* * *

William M. Wetzel, chairman of the board of Fyr-Fyter Company, Dayton, Ohio, manufacturers and distributors of fire extinguishers, nozzles, hose couplings and other products in the fire protection field, announced the purchase as of August 31, of the Superior American Fire Alarm, Division of the Revere Corporation of America, Meriden, Conn.

Facilities are being established in Wooster, Ohio, for the manufacture and distribution of the municipal fire alarm and central station equipment.

COTTERMAN WELDED STEEL SAFETY LADDERS For Filing Rooms—Stock Rooms—Vaults



45"—5 step

New improved design now being made from 1" diam. round furniture tubing. Mounted on Swivel Brake Casters which allow the ladder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

Made in 7 heights:—18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in 18", 20" or 24" width. Send for Circular No. 53-N and prices on these ladders and our full line of Wood Rolling Ladders.

Manufactured by

I. D. COTTERMAN
4535 N. Ravenswood Ave. Chicago 40, Ill.

WHY RISK A TRAFFIC ACCIDENT IN YOUR PLANT

Because of Blind Corners



Klear-Vu Safety Mirrors for Industrial Use

• Klear-Vu Safety Mirrors are designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances and exits present a safety problem because of traffic accidents.

• Mounted at a height of 8 to 10 feet, Klear-Vu Safety Mirrors clearly reflect the movement of oncoming floor traffic from opposite direction—thereby removing principal cause for collisions.

• Mirrors are easily installed and adjustable for any desired angle. They are also adaptable for outdoor use.

Style	No. Dimensions
Circular Convex Glass	120 12" Dia.
Circular Convex Glass	180 18" Dia.
Circular Convex Glass	240 24" Dia.
Flat Glass Rectangular	918 9" x 18"
Flat Glass Rectangular	1640 16" x 24"

Write for bulletin:

Lester L. Brossard Co.
540 N. Michigan Ave.
Chicago 11, Ill.

TRADE PUBLICATIONS

These trade publications will keep you up-to-the-minute on new developments in safety equipment and health products. All catalogs are free, and will be sent without obligation. Just circle publication number on the Reader Service Postcard.



1. Electric Motor Catalog: A new booklet No. 1878 illustrating 20 principal types of United States motors. Illustrated are—uniclosed, totally-enclosed, explosion-proof with and without fan, Varidrive, Syncrogear, combination variable speed and internally geared units, right-angle worm gear, verticlosed hollowshaft, vertical solid shaft, test stands and aircraft. Also included are auto start buffers, right-angle hollowshaft gear drive for turbine pumps, and details on lubriflush transverse bearing lubrication, asbestos-protected winding and normalized motor castings. United States Electrical Motors.

2. Yale Electrical Connector: The Yale battery connector which may be used for currents up to 175 amperes and voltages up to 110 is pictured and described in bulletin 1518A. This connector is designed for use both on the equipment and in the charging rooms where light or medium currents are required. Dimensions and lists of complete Yale connectors and parts are included in the bulletin. The Yale & Towne Manufacturing Co.

3. "10 Ways to Get More Work from Your Trucks": This booklet, revised to include latest designs of Servis Recorders and Charts, explains how this precise instrument makes permanent records of when and how long motor trucks and industrial trucks stand still, when and how long they are busy each day. Also explains how costs and wasted time are effectively reduced when these tamperproof records are used as a basis for organizing routes and schedules, and as performance records for operators. Service Recorder Co.

4. Magnetic Steel Sheet Separators: Catalog page Form SS-210, fully describes magnetic steel sheet separators for handling of round, square, nested, irregular or odd

shaped stacks of steel sheets—in shearing, welding, pressing, riveting, or similar production operations. Homer Manufacturing Co., Inc.

5. Rubber Knee Boots: Featured in this bulletin is a heavy duty rubber knee boot. With or without steel toe has a sponge insole and a flexible steel sole for resistance to puncture. Black or white models in various sizes available. Also shown are white Stanzoils gloves and white neoprene aprons. Scientific Industrial Supply Co.

6. "Disaster": Booklet No. 5000-4 is designed to assist the industrial plant in choosing safety and rescue equipment for use in emergencies. While the booklet makes no attempt to outline the organization of a disaster-control plan, it does assume the existence of groups or teams within a plant whose job it is to effect rescue and recovery operations in case of tornadoes, fires, explosions, or other types of emergencies. Separated into five sections, the booklet discusses the equipment needs of a rescue team, an engineering team and a medical team, and contains a table-of-equipment check-chart for quick reference. Mine Safety Appliances Company.

7. Fire Extinguishers: This new 4-page catalog No. DC-62254 illustrates Randolph's new line of "Power-Valve" dry chemical fire extinguishers. Describes 6, 12, 20 and 30 pound models with push-button release, 35-foot range, new "highway caution" yellow color scheme. Complete specifications. Randolph Laboratories, Inc.

8. Safety Signs: Self-sticking pipe markers and safety signs and reflective signs are described and illustrated in this catalog. Different wordings of signs are given. Other features detailed are the ease of application, ease of sticking to any surface, sensitive reflection of light on special types and conformation

to uniform size standards. North Shore Nameplates, Inc.

9. Safety Gloves and Clothing: Catalog describes and illustrates aprons, asbestos gloves and mittens, asbestos sleeves, finger cots, finger guards, welders' curtains, hot pads, etc. Sizes and prices included. Advance Glove Manufacturing Co.

10. Adjust-A-Leg Equalizing and Locking Sling: Bulletin describes how unbalanced and "hard to get hold of" loads may be handled as easily as simple loads, with the model 52 sling. As the tension of the lift comes on, the legs automatically adjust themselves and frictionally lock in position. The load is raised level with no fuss or bother. Typical applications and specifications included. Caldwell Co.

11. Holly Pneumatic Conveyors for Handling Bulk Materials: Pamphlet describes the conveying system for handling and transporting one or several pulverized, granular or small broken, bulk materials. Typical uses are for handling of grains from box cars and ships to grain elevators, unloading of salt cake from box cars, or for use in waterworks sewage disposal plants, etc. Holly Pneumatic Systems.

12. Flintkote Industrial Products: This 8-page brochure describes and illustrates a wide line of bituminous materials in special formulations for use as floorings, underlayments, protection of walls, frames, foundations, insulation, metal, etc. Included in the brochure is a guide to selection of products and how to use them, and specifications. Flintkote Co.

13. Guard and Guide for Table Saws: Bulletin features and describes the Brett-Guard and Guide for table saws 6" to 16" blades. Company claims the guide performs many operations where no other existing guards will function

such as ripping, short cross cutting, mitering, rabbeting, tenoning, dadoing, diagonal sawing and template cutting. Brett-Guard Corp.

14. Head and Eye Protection: Catalog No. 5-54 illustrates goggles, lenses, helmets, face shields, and respirators. Contains specifications of equipment, including the meeting of Federal Standards, and a table to facilitate selection of right type of equipment for particular hazards. Component parts pictured and described. Dockson Corp.

15. Bete Fog Nozzles: This catalog illustrates and describes company's line of fog nozzles for every need. Shown are: fire nozzles, fog nozzles for garden hose, special fog nozzles for brush spraying, chemical processing or for unusually high pressure operation, air cleaning, humidifying and cooling, processing of gases, etc. Also included engineering data on capacity and coverage, pressure drops in hose and pipe. Bete Fog Nozzle, Inc.

16. Automatic Fire Detection System: New bulletin describes the characteristics and specifications of manual alarms and local and auxiliary automatic fire detection and alarm systems. Explicit directions for installation and "trouble-shooting" are included. Notifier Manufacturing Co.

17. Steel Combination Chain: New 2-page catalog sheet, No. 4140-19, illustrates and describes the new "Dura-Tred" "Beacolloy" steel combination chain. Bulletin includes construction features, operation and application. Designed for use with "Troc-Pull" wheels, the new combination chain is used on all types of bucket elevators or conveyors handling bulk materials. Beaumont Birch Co.

18. Day "AC" Dust Filters: Bulletin 528-R describes and illustrates the "AC" automatic-continuous dust filter that can be furnished housed or unhoused, for use on either pressure or vacuum. With this filter no sections need to be shut down for shaking or rapping. Selection charts include capacity ratings, dimensions, etc. The Day Co.

19. Sa-Fuse: Featured a new fuse compartment that disconnects and grounds the fuses for safe handling. The new gang-disconnect developed for "Hi-Fuse" High Interrupting Capacity Motor Control, called "Sa-Fuse," this new principle eliminates the hazard and awkwardness when inspecting and replacing high-voltage fuses. Brochure gives full details. Electric Machinery Manufacturing Co.

20. Lineman's Equipment: Catalog displays complete line of lineman's equipment including belts, "climbers," accessories, clothing and tools. Also featured are safety tools and equipment for electricians and tree surgeons. Miller Equipment Co.

21. Safety Shoes: Literature describes and illustrates a new line of safety shoes including dress oxfords, moccasins, 6 and 8 inch high work shoes, and foundry shoes. All shoes have the safety steel box toe to protect the toe area and arch supporting steel shanks. The new line includes styles suitable for workers in machine shops, foundries, lumbering and other outdoor occupations, transportation, etc. Graton & Knight Co.

22. Thompson "Servisafe" Units: Illustrated bulletin No. WPH-54 describes four "Servisafe" models (1) single-arm metal pole unit, (2) double-arm or "Y" metal pole unit, (3) single-arm bracket for wall installations and (4) single-arm bracket for wood poles. Bulletin outlines the operation of the patented disconnecting and lowering hanger mechanism which is the key to "Servisafe" performance. The "Servisafe" units are recommended for street, parkway, industrial plant yards, service stations, etc. Thompson Electric Co.

23. Floor Absorbent: A new circular 655 describes the use of Zorball, an all-purpose floor absorbent, by more than 20 different industries. Of particular interest to all who have slippery floors to combat is the fact that even oil or grease saturated Zorball resist burning. Wyandotte Chemical Corp.

24. Pressure Operated Carbon Dioxide Fire Extinguishing Systems: Brochure describes the improvement in electrically-operated, automatic carbon dioxide fire extinguishing systems. This new arrangement features total enclosure of all operating parts, a simple visual inspection to determine that system has operated, and a testing procedure which permits actual check of all operating functions except the actual discharge of cylinders. These electric systems are approved by Underwriters' Laboratories and employ thermostats at the fire hazard to detect the blaze and activate cylinders of carbon dioxide. Walter Kidde & Co., Inc.

25. Automatic Emergency Lighting: Literature describes the new light Worden Chargomatic 88 that provides instant, automatic emergency light when the regular source

of power fails. New heavy duty 6 volt, 105 ampere glass jar battery with visible hydrometer balls meets the new requirements of both the National Electrical Code and Underwriters' Laboratories. Electric Cord Co.

26. Non-Skid Floor Mastic: Literature describes a non-skid floor mastic for coating all slippery steps, floor surfaces, concrete loading platforms, shower and wash rooms, ramps, catwalks, etc. Valdura Paint Division, American-Marietta Co.

27. Anti-Fogging Liquid: An anti-fogging liquid that forms an invisible coating which resists formation of fog or moisture on lens surfaces is described in this bulletin. It can be used on goggles, masks, and other glass or plastic surfaces. Also features a non-drip pocket applicator and "squeeze bottles" for quick spray application to truck fleet windshields, windows and mirrors. Buckley Corp.

28. Portable Fire Fighting Pumps: A new comprehensive bulletin describes portable fire fighting pumps for fire departments, civil defense units, forestry services, industrial emergency units. Performance data and curves are presented along with pump and gasoline engine specifications. A photograph with diagrams shows how the pump operates. Also listed are two additional pumps of interest to fire departments. Marlow Pumps.

29. Safety Tank Car Platform: Developed especially for railroads, chemical and petroleum companies, bulletin describes this new unloading platform which eliminates dangerous hazards of working on slippery tank car tops and cuts waste and mess of bottom unloading. Nichols Engineering Co.

30. Ear Valve: Bulletin features an ear valve which admits conversational tone but automatically closes to protect the ear from sudden loud noises or the concussion from explosions. Fits comfortably into ear canal. Sigma Engineering Co.

31. Safety Mirrors for Industrial Use: Safety mirrors are designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances and exits present a safety problem because of traffic accidents. Bulletin gives full details. Lester L. Brossard Co.

32. Punch Press Guards: Various types of metal and plastic guards shown in bulletin such as basket guard, non-repeat mechanism, and zone barriers and single and double sweep guards. Searjeant Metal Products, Inc.

(Continued on page 142)

APRONS THAT PROTECT



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- Acid Resistant
- Grease & Oil Resistant

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Welders' Curtains, Gloves, Hand Pads for Steel and Glass Handlers.

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DOLCOWAX IS DURABLE—it wears well, actually improving under foot traffic. This self-polishing feature means true long-run economy.

IT'S EASY TO APPLY—DOLCOWAX spreads evenly and polishes quickly to its characteristic soft lustre. MAINTENANCE likewise requires a minimum of man-hours.

NO "CRAWLING!" — Experienced floor men specify DOLCOWAX because they know it second-coats beautifully. They get a perfect, quick, uniform job every time . . . under all conditions . . . on all types of flooring.

As for slip-resistance DOLCOWAX has Underwriters' Laboratories approval, of course!

Write for floor finish literature and see your DOLGE SERVICE MAN.

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33. Oil Containers: 44-page catalog features a complete line of oiling equipment, filling cans, and containers for hazardous liquids. Approved by Underwriters' Laboratories. Each product pictured, described, and specifications given. Eagle Manufacturing Co.

34. Work Gloves: 15-page catalog features a line of coated fabric work gloves. Gloves coated with neoprene, natural rubber, vinyl plastic and impregnated vinyl plastic. Resistance to liquids noted, and chart included showing a performance and chemical resistance record of the various coatings. Edmont Manufacturing Co.

35. Safety Goggles: Catalog covers a complete line of eye protection. Heat-treated for added strength, the goggles include chipping and grinding, welding, riveting, tooling and chemical and dust protective types. Also listed are a lens cleaning cabinet, face shields, eye shields and welding helmet. Plastic goggles for different hazards are also discussed. Pulmosan Safety Equipment Co.

36. Rolling Ladders: The company's line of wheeled ladders is covered with illustrations, diagrams, specifications and uses outlined in this brochure. Straight bent and swivel ladders, rolling stepladders, library and store ladders and ceiling or overhead ladders are listed. I. D. Cotterman.

37. Ready Made Signs for Safety: This 2-color catalog illustrates and describes a line of safety, warning instruction and information signs, eye hazards, machine dangers, fire, falling, first aid, general accident prevention signs, men working and many other types. Ready Made Signs Co., Inc.

38. Safety from Head to Foot: Literature describes McDonald T-Hat and Cap, goggles, Dustfoe No. 55 respirator, Kanister Kit and Roll-Up, safety gloves, safety clothing and belts, safety boots and insoles. B. F. McDonald Co.

39. "How to Clean Industrial Floors": Helpful new 4-page bulletin lists company's line of floor machines. The bulletin covers the various features of motorized sweepers, such as an extended-arm brush to reach into corners and collect all dust along the wallboards. Specifications included. G. H. Tennant Co.

40. Freight Car Tools: Bulletin describes and illustrates the use of a friction wrench for dumping and

winding up pockets of hopper car doors, and a rail clamp for holding car wheels in place. Safety First Supply Co.

41. Adjustable Lighting Units: Bulletin describes Dextra-Lites, a new line of 17 universally adjustable incandescent and fluorescent lighting units designed for industrial and commercial application. For use wherever people must work in close proximity to the source of light. Swivelier Co., Inc.

42. Burn Spray Kit: The kit contains 25 units of various bandages and burn first aid items, which provide proper first aid treatment of any size or type of burn. There is sufficient space between the units for easy and quick fingertip selection. The pull-out drawer contains four 11 ounce aerosol cans along with a large burn sheet and bandage scissors. Bulletin gives full details. Medical Supply Co.

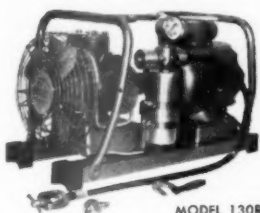
43. Non-Skid Gratings & Treads: 4-page bulletin gives complete specifications for various types of gratings and stair treads with serrated edges. Also outlines the safety features of these gratings. Bustin Firm Grip Grating Corp.

44. Sirens: Folder illustrates a line of sirens and lights for emergency vehicles. Sirens available with rotating or flashing light for visual warnings as well as audible. Emergency lights also include flashing and rotating beams, and double beams for mounting on vehicles. Federal Sign & Signal Corp.

45. Bulletin Boards: Circular illustrates and describes cork back bulletin boards, directory boards, nameplates, announcements, etc. Illustration and price list included. A. C. Davenport & Son, Inc.

46. Noise Measuring Equipment: Bulletin describes a sound survey meter for preliminary surveys of sound levels to determine the amount of noise and to help indicate necessary steps for its control. This meter is already being used widely to improve working conditions of office personnel, increase comfort in hospitals, residential section and industrial plants. General Radio Co.

47. Industrial Work Gloves: Brochure describes and illustrates company's line of all-purpose men's full-dip knit wrist plastic work gloves. American Rubberizing Co.

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and
CONVENIENCE****CHARGE YOUR OWN
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In many cases it has replaced asbestos gloves at a big saving. Fine for extra warm welding jobs.

If not available from your safety equipment dealer, write us for information and prices.

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*Patent No. 2,850,385

**SINGER
GLOVE MFG. CO.**

860 W. WEED ST. CHICAGO 22

"Work Gloves That Sing"

**Electronics Aids
Fire-Fighting Research**

AN ELECTRONIC DEVICE with 14 temperature-sensitive "feelers" is helping firemen to "see through the smoke" and know more about conditions inside a burning house.

The device, built into a two-story house erected on the campus of the Miami Fire College, probes the behavior patterns of fires as part of the college's research efforts, designed to develop new fire-fighting techniques. Developed by Minneapolis-Honeywell, the electronic recording instrument indicates temperatures throughout the burning building and charts the findings. Strategically spotted "feelers" or thermocouples are imbedded in the walls, ceiling and floors of the building to feed back temperature readings.

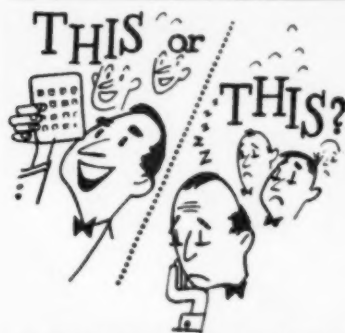
"Fire fighters no longer idle away time playing checkers," says Chief Newton L. Wheeler, a 31-year veteran. "Today's fireman is kept busy brushing up on old skills and developing new techniques in the science of fire fighting," he adds.

The temperature-monitoring system played a large part in helping the college to develop techniques involving the use of a "fog nozzle" and "wet water."

The "fog nozzle" directs a cloud of water on the fire, not a heavy stream. Experiments proved that such water could absorb more heat than a heavy stream and more rapidly reduced the temperature of the burning region as well as temperatures at the opposite end of a building.

"Wet water" is produced by adding a wetting agent, similar to a dishwashing detergent, to plain water. The wetting agent breaks down the surface tension of the water, increasing the heat-absorption qualities of the water and greatly reducing the amount of water needed to douse a fire.

The trouble with the new hair styles is that from the back you can't tell if it's a man who needs a haircut or a woman who has just had one.

**DISCUSSION BINGO will wake
up your Safety Meetings!**

You will be greeted by an alert audience, anxious to begin and each one eager to play a part in this fascinating game.

A thought provoking topic is imprinted adjacent to each number on all boards, thus 1250 different subjects for discussion are projected on the set of 50 boards.

Discussion Bingo will sustain the interest and grip the attention meeting after meeting. It is the fun way to teach and inspire safe thinking and doing, all participate in the discussion and there is always a winner.

We will gladly send you the complete set on 10 day approval. Be convinced of its value in your work, or return it at our expense.

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LIBERAL PROFIT OPPORTUNITY
ON QUANTITY PURCHASES.

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P. O. Box 327 Duncan, Oklahoma

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and
WORK INTERRUPTIONS
from falling
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For 40W tubes, per C, \$17.00
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FOR SCAFFOLDS AND SWINGS

Locks automatically. Instantly. Slips onto ordinary rope lifeline. Moveable up or down with man. Instant locking position at all times, whether stationary or being moved up or down.

Snaps into safety belt: No adjusting. Inexpensive. Overall length approx. 13". Does not harm rope. Weight: approx. 5 lbs.

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Want More Information?

... the Reader Service postcard will get it for you FAST!

Here's how it works—

Printed below are two identical Reader Service postcards—the bottom one for your use; the top one for later readers of this issue. The numbers listed on each card are keyed to products advertised and the new safety equipment and trade publications described on

pages 130 through 142. Just circle the items you want to know more about, and we will ask the manufacturer to send you full information without obligation. Both cards are perforated for easy removal, and no postage is required.

New Safety Equipment

Products featured in this section have been carefully reviewed by Council engineers so as to bring you only what's new and reliable in the safety field. Only new safety and health products, or newsworthy improvements in existing equipment are eligible for listing.

Trade Publications

Here's a wealth of helpful trade literature—catalogs, spec sheets, booklets, brochures—that will help you compare before you buy. Whether you are in the market now, or think you may be at a later date, you'll want these valuable references in your safety equipment data file.

Products Advertised

As you read through this issue of the NEWS, you will find advertisements describing equipment that may help you solve some of your accident problem. Instead of making a "mental note," make sure you get full information by circling the corresponding page number on the Reader Service postcard. The letters L, R, T and B locate the ads on the page—left, right, top and bottom. IFC—inside front cover; IBC—inside back cover; BC—back cover.

IMPORTANT—Be sure to fill in your name, organization and address in the space provided on the reverse side of the postcard.

NATIONAL SAFETY NEWS:

Nov. 1954

(Good until Jan. 11)

Please send me more information on the items circled below:

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NATIONAL SAFETY NEWS:

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The advertising pages of the News

... your guide to reliable suppliers of worthwhile safety equipment

The advertising policy of the NEWS requires that all equipment and products meet established codes and standards, have the approval of recognized testing agencies, or have proven their value through actual use in industry. Council engineers and technicians screen every

advertisement to make sure that product description is accurate, and performance claims verified by reliable sources. It should not be construed, however, that products advertised are approved or endorsed by the National Safety Council.

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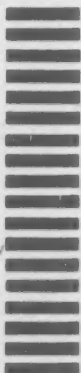
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NATIONAL SAFETY NEWS

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Make sure all the items you want to know more about are circled . . . check to make sure your name, organization, and address are printed on this side of the postcard . . . THEN mail it today.

National Safety News, November, 1954

CESCO

RIGHT...
before your Eyes!

Auxiliary Filters

PREVENT CLOGGING OF CARTRIDGES



Auxiliary cellulose filters, now available for the CESCO No. 99 ORGANIC VAPOR RESPIRATOR, prevent the clogging of cartridges during paint spraying operations. Together with the dual 85 cc cartridges they provide high absorptive capacity and low resistance to breathing.

These low-priced filters are easily attached by merely unscrewing the cartridge retaining ring. Filter pad and retainer are placed over

cartridge, and ring is screwed back on. It's quick, and no tools are required.

The "double-duty" CESCO No. 99 Respirator has a soft rubber facepiece which provides a snug, leakproof fit with minimum headband tension. Eye protection may be worn conveniently as the respirator sets low on the face.

Order from your nearby CESCO safety equipment distributor or write us for further information.



CHICAGO EYE SHIELD COMPANY • 2306 Warren Boulevard, Chicago 12, Illinois

CESCO FOR SAFETY





If you Read Between the Lines ...he Prescribes for Your Profits, too!


In Industry's efforts to reduce costly eye accidents and other accidents to head, body, limbs and equipment, the number of workers who wear safety prescription glasses is increasing. Management profits and workers profit by such a program.


In some areas the services of the ophthalmic professions have not been utilized to verify the lens properties of prescription safety glasses, fit the glasses to the individual worker and maintain them in proper adjustment. These functions which are the responsibility of the professions, are necessary in assuring the maintenance of safety standards and visual efficiency on the job. About one-fourth of the states now require that corrective-protective glasses shall

be available to workers only when provision is made for these adequate professional services.

Our own corrective-protective glasses meet the most rigid safety requirements. The  on Super Armorplate lenses is your assurance that they are heat-strengthened, sufficiently thick and impact resistant. As for frames, only corrosive-resistant metal or non-flammable plastic is used in their fabrication. The  trademark appears on frames, also.

We are inviting the cooperation of safety directors everywhere in seeing that the full cycle of professional services is rendered in connection with safety prescription glasses. When you uti-

lize these services and standardize on high quality  trademarked lenses and frames, you are assured of an investment which can pay for itself many times over in both human and dollar values!

Safety is our business. Safety is your business. Prescribing, checking prescriptions, fitting of prescriptions is the business of the professions. Always specify  trademarked lenses and frames to assure the maximum safety for your employees. There is none better.

American Optical

 SAFETY PRODUCTS DIVISION

†T. M. Reg. by American Optical Company

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PROTECTIVE EQUIPMENT

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REGULATIONS

LEAFLETS

SAFEGUARDS



the growing strength of

the fight for life

**A REPORT ON THE 41ST YEAR OF
THE NATIONAL SAFETY COUNCIL**

NATIONAL SAFETY NEWS CHICAGO, ILL. NOVEMBER, 1954

Vol. 70, No. 5 Section 2



1913-1954

THE COUNCIL'S 41ST YEAR

The sum total of a year's activities of an organization as large, as complex, and as far-reaching as the Council can hardly be compressed within the few pages of a report. Nor can the outlook for the future, the problems, be easily condensed and summarized. Yet those are the tasks of this annual report.

There are three important aspects of every Council program:

- the people who work, consult and deliberate, and provide—
- the budgets which both make possible and limit—
- the specific and tangible activities and results.

This report attempts to summarize, albeit briefly, each of these facets of the Council's development.

This report is organized primarily around the five major fields of activity—Industrial; Traffic; Farm; Home and School.

Progress and needs in the major fields cannot be appraised without full recognition of all activities in those fields. Consequently, the public information, editorial, statistical, field organization and similar work is reported in each major program field. Thus, by way of example, the full scope of the work of the Public Information Department will be seen only after review of the five major program reports, as well as the brief summary of that Department's work.

In each field the report states the major problems and outlook. For the safety movement as a whole, the outlook is easily stated—continued growth and strength, and greater success in preventing accidents.

Ned H. Dearborn

President, National Safety Council

THE ACCIDENT PROBLEM



95,000 men, women and children killed



9,600,000 injured, including



350,000 permanent impairments



\$9,700,000,000 lost — \$220 per household

A deplorable toll among all ages—among younger people, a national catastrophe.

- ▶ The leading cause of death from 1 to 35 years of age.
- ▶ Deaths of children exceed the combined total of the seven most deadly diseases.
- ▶ Leading cause of lost working years of life.

Accidents produce economic and social loss, impair individual and group productivity, cause inefficiency and retard the advancement of standards of living.

The elimination of accidents is vital to the public interest.

THE PROGRESS

When measuring long-term or short-term progress, increases in population, changes in age composition, and increase in use of motor vehicles are among the many dynamic factors which

change the size and character of the accident problem. Consequently we use accident rates as measures of progress relative to changing exposure to accidents. There have been substantial reductions in all the principal rates.

NON-MOTOR VEHICLE DEATHS per 100,000 population	40 YEARS 1913-1953	10 YEARS 1943-1953	1 YEAR 1952-1953
Ages: 0-4 years	-55%	-33%	-4%
5-14 years	-59%	-36%	-5%
15-24 years	-61%	-54%	0%
25-44 years	-71%	-35%	-1%
44-64 years	-68%	-32%	-4%
65 years and over	-44%	-26%	-4%
MOTOR VEHICLE DEATHS Per 100,000,000 miles traveled	25 YEARS 1928-1953 -58%	10 YEARS 1943-1953 -38%	1 YEAR 1952-1953 -4%

By any rate measurement, there were nearly 600,000 fewer people killed accidentally since 1913 than would have been killed if rates had not been reduced. If disproportionate increases in the population of children and elderly people were considered, and allowance made for the far greater use of motor vehicles, the savings of lives would be even greater.

THE TRUSTEES

... direct the special solicitations of funds from private or public sources to support the Council's general activities, and have authority over the disbursement of such funds.

1953-1954

"Many people in business and industry have spoken to me about the need for expanding the work of the Council in order to check the growing toll of accidents and the corollary growth of congestion on our streets and highways. I have been encouraged by these expressions of interest in this matter and am confident that the Trustees will help to make possible the necessary expansion of the Council's work."

—W. S. S. Rodgers



W. S. S. RODGERS
former Chairman,
The Texas Company

**chairman
of the trustees**



JOHN STILWELL
Yonkers, New York

**vice chairman
of the trustees**



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President
National Safety Council

**secretary
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The Coca-Cola Company

THE BOARD OF DIRECTORS

1953-1954

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E. F. DU PONT

Director, Employee Relations Department,
E. I. du Pont de Nemours & Co., Inc.



vice chairman of the board **FRANKLIN M. KREML**

Director, Traffic Division, International Association of Chiefs of Police

... is responsible for the general policies and program of the Council.

"The strength of the Council and its ability to cope with national safety problems is reflected in the roster of those who have served as Officers and Directors. All facets of our national life are represented. The energetic and intelligent work by these men and women on the problems encountered during this past year promise much for the future growth and increased effectiveness of the safety movement."

—E. F. Du Pont

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Editor
Successful Farming

GORDON C. GRAHAM
Supervisor, Safety Education
Department
Detroit Public Schools

HOWARD GRAMLICH
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Chicago & North Western Railway

GERARD O. GRIFFIN
Safety Director
Dravo Corporation

JOHN V. GRIMALDI
Assistant Manager, Accident Pre-
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Association of Casualty & Surety
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Managing Editor
Mason City Globe-Gazette

O. R. HARTWIG
Consulting Safety Engineer
Portland, Ore.

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Greater Los Angeles Chapter
National Safety Council

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Industrial Relations
United States Steel Company

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Cartersville, Ga.

MERWYN A. KRAFT
Director, Department of Personnel
& Accident Prevention
American Transit Association

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Michigan Bell Telephone Company

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Goodyear Tire & Rubber Co.

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Executive Assistant to the Secretary-
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Congress of Industrial Organizations

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chinists

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Court of Appeals of Ohio

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New York University

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Director, Accident and Fire
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Farm Safety Specialist
University of Wisconsin

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Assistant for Ground Safety
DCS/ Personnel
Hq., U. S. Air Force

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Director of Research & Develop-
ment

Mine Safety Appliances Company
CHARLES M. ZIEGLER
Michigan State Highway Commis-
sioner

ACTIVITY FINANCES — 1953

"Money alone is not accident prevention, but it is one limiting factor in the expansion of Council work to meet needs. To attain better understanding of Council finances, we prepared the following analysis of sources of Council income, reasons for it, and how it is spent.

"The Council is complex, as it must be to attack accident problems in the various areas of our national life. Council finances are equally complex, various groups supporting those programs which are to them most useful or most deserving. The charts and text attempt to answer the commonest questions. Further, the Council will always answer other questions insofar as its accounts and statistics permit."

—George F. Getz



Vice President for Finance
and Treasurer

GEORGE F. GETZ, JR.
President, George Getz Corp.

WHO Supports Council Programs?

ESSENTIALLY INDUSTRY AND BUSINESS

—manufacturing; rail, motor and air transport; insurance; public utilities; extractive and other industries. Most of this support is direct but in some instances is through business associations.

GOVERNMENT

—federal, state and local, as employers, mostly through use of occupational safety materials. In a few states, as an insurer. Never as a contributor or grantor.

OTHER

—financial support is usually small, although program participation may be great, particularly by government safety and regulatory agencies, associations, school groups, and public service organizations.

WHY do they Support the Council?

MEMBERSHIP SERVICES

—to get Council services which are useful to them in their own activities, usually to reduce their own accident costs.

PUBLIC SERVICES

—contributions to support Council programs in traffic, school, home, farm and related fields
—work important to the public welfare, which is not self-supporting.

WHAT were the Specific Sources of 1953 Income?

Membership Dues	\$1,004,000
Additional Publications	1,807,000
Advertising	279,000
Congress	105,000
Other	37,000

Public Service Contributions.... \$599,000

About one-third consists of grants for specific projects.

Every major field of activity receives some support from all or most of the sources listed above—for example, the traffic program, which depends primarily on contributive support, also has important income from dues and publications, and smaller amounts from advertising and Congress fees.

When the income attributable to one field is inadequate for the necessary programs in that field, the Board of Directors may allocate surplus income from another field which is not fully expended in that field. This refers essen-

tially to the dues and sales income in the occupational field (including insurance and motor transportation), a portion being available to help pay for the public service programs—traffic, home, etc.

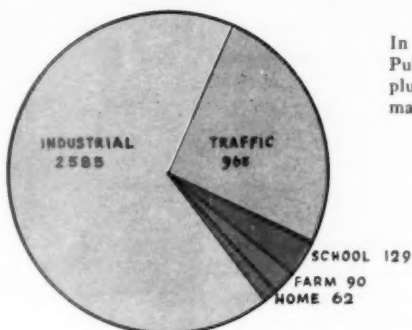
The National Safety Council does not share in the contributions made to its Chapters. Chapters are autonomous, raising and expending their own funds. Amounts paid to the National by the Chapters reimburse the National only in part for materials and other direct services to the Chapters.

WHAT ARE THE OVERALL INCOME AND EXPENSE

FOR THE MAJOR FIELDS OF ACTIVITY?

INCOME

thousands
of
dollars



The net deficits in Traffic, Farm, Home, and School safety are paid from the net surpluses of the Industrial and Motor Transportation fields. This reflects the interest of industrial, business, and motor transportation groups in traffic and school safety, and in off-job accident prevention generally.

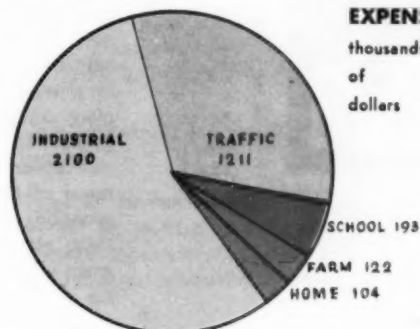
Finance is not the Full Story

The money taken in and paid out is only a partial reflection of the work of the Council. The members, 12,000 strong, perform important services not reflected in the financial reports. They give their time

In these charts, the income and expense of Publications, General Activities, Public Information, Field Organization, and General Public Service Funds, plus the expense of office services and overhead, have been assigned to the major subject fields of safety activity.

EXPENSE

thousands
of
dollars



to develop and carry through technical and organizational projects. They travel to conferences at their own expense. They bring in new members. In a thousand ways they effectuate the cooperative program, just as they have since they organized the Council in 1913.

EXPLANATORY

NOTES

The figures presented above are the first ever compiled in which the Council's total income and expense have been completely allocated to one of the five major program fields: Industry, Traffic, Home, Farm, School. The following paragraphs present information which will be helpful in understanding the reasons for and the basis of the allocations.

In each of these fields, there is a staff department or division of professional people (plus immediate clerical assistance) who have the technical "know-how" in their particular field of operation. These people prepare the technical reports and materials, work with the Council's volunteer leadership, and represent the Council in cooperative work with other organizations. Travel is an important expense of these units.

In addition to these program departments there are large staff units which perform important services in behalf of all program operations. One is the Membership Department, responsible for selling and servicing memberships and materials in all fields. Another is the Service Department, responsible for stenographic and clerical work, printing, and stock and shipping of everything the Council produces.

Large printing and publishing expenses are incurred as a part of the Council's work in the program areas. And there are overhead expenses similar to those faced by all organizations. Substantial items in this category are office rent and related costs, employee welfare and benefit expenses, and general staff administration costs.

As an intermediate step in analysis of Council expenditures, direct expense and all publications and office services were assigned to specific activities.

1953 EXPENSES

Industrial	\$1,609,000
Motor Transportation	329,000
Other Traffic	517,000
Farm	79,000
Home	51,000
School	140,000
Public Information	205,000
Chapter Service	190,000
General Activities	610,000

In the above classification, the last three items may be further allocated to the five major fields. The Field Organization Department is engaged in developing and strengthening community and state safety organizations, which have so great an impact in all fields of safety. The Public Information Department publicizes all of the Council's work through television, radio, newspaper, etc. General Activities include Public Service Fund procurement, the Congress, and sales of calendars and other incentives.

Further, Motor Transportation activities may be classified as part of the overall Traffic program. The Motor Transportation program is a membership service activity in which the members pay substantial amounts of dues and purchase additional publications for use in their own safety programs. Income in 1953 was \$378,000.

Thus, the specific staff in any one of the Council's program departments represents only a fraction of the total expense incurred by the Council to promote that phase of safety. The corollary and supplementary expenses are as truly a necessary part of the total program as is the program unit itself.

This allocation of all expense to the five program fields can be made on an approximate basis only. It is the result of careful study, and portrays a substantially accurate picture of the Council's activities. The Council's regular financial reports, duly audited, are published each year in May; copies may be secured on request.

The five fields into which Council activity has been classified cover public non-traffic accidents only indirectly through school safety, industrial off-job safety, and farm resident safety. The Council has no established programs in recreation, aviation (except scheduled transport) and other non-traffic activity.



INDUSTRIAL SAFETY

"The industrial safety program of the Council has contributed a great deal to safer operation of business and industry. Accident prevention is now recognized as an essential feature of management in a large segment of industry. However, there are still many companies which have substandard safety programs. In fact, some industries may be said to be substandard. Industry too must recognize the enormous off-the-job accident toll as partially its responsibility. The Council stands ready to assist on these remaining problems. But the Council's program must be reinforced and supported by the leaders in *all* business and industry."

—E. C. McFadden



Vice President
for Industry

E. C. McFADDEN

Vice President, Texas Employers
Insurance Association

INDUSTRIAL SAFETY PROGRAM

The Council's industrial safety program is a cooperative effort by business firms, insurance companies, associations, technical societies, labor organizations, and state and federal agencies who work together to:

- Develop new accident prevention techniques.
- Disseminate safety information and materials.
- Stimulate and assist in organizing and operating safety programs.

These services go primarily to the 25,000 business units which are Council members and support its activities. However, assistance is provided to all business firms and others upon request.

The industrial safety program employs about 150 people—safety engineers, industrial hygienists, statisticians, writers, and service consultants, plus clerical and administrative personnel. The work of this paid staff, however, depends on and is heavily augmented by volunteer work by over 1,300 representatives of member companies who write much of the technical material produced by the Council, advise the Council on the needs of industry, and serve as consultants.



INDUSTRIAL CONFERENCE

The industrial safety effort of the Council is directed by the Industrial Conference. The Conference, made up of two representatives from each Section in the Council and 60 elected members-at-large, is recognized as the nation's top group of safety specialists.

Among the functions of the Conference are to:

- Maintain communications with professional groups, government agencies, engineering colleges, etc. on matters relating to safety.
- Develop new methods of safety engineering.
- Develop new standards for safety equipment and devices.
- Study attitudes and motivations of workers.
- Develop safety training programs.

The Conference, in addition, coordinates work of the Council staff and the Executive Committees of the Sections in developing new

Industrial Conference 1953 - 1954

Chairman: E. C. McFADDEN

Vice-Chairman: H. J. SPOERER, Director of Industrial Relations, The Youngstown Sheet and Tube Co.

W. H. ADAMS, Safety Consultant, American Gas Assn.

CYRIL AINSWORTH, American Standards Assn.

R. H. ALBISSER, Safety Manager, Merck & Co., Inc.

H. B. ALEXANDER, President, H. B. Alexander & Son

W. M. ALLISON, Safety Director, British Columbia Lumber Mfrs. Assn.

H. L. ANDREWS, Safety Director, The Firestone Tire & Rubber Co.

FRANK R. BARNAKO, Manager, Compensation & Safety Dept., Bethlehem Steel Co.

ROBERT I. BARR, Safety Supervisor, Industrial Rayon Corp.

PETER J. BERNARD, Director of Personnel & Safety, H. Wolff Book Manufacturing Co.

J. V. BERRY, Supervisor of Safety, Bethlehem Mines Corp.

M. F. BIANCARDI, Mgr., Health & Safety Dept., Allis-Chalmers Mfg. Co.

JOHN F. BIEHL, James Burns & Sons, Inc.

WALTER BOON, Safety Director, Sun Oil Co.

R. M. BOYLES, Director, Industrial Relations, Midwest Rubber Reclaiming Co.

MATTHEW M. BRAIDECHE, Director of Research, National Board of Fire Underwriters

HARRY BRAINERD, Executive Manager, Western Pennsylvania Safety Council

FRED W. BRAUN, Vice-President of Accident Prevention, Employers Mutual Liability Insurance Co.

CLARK BRIDGES, Council on Industrial Health, American Medical Assn.

W. F. BROWN, Safety Director, Consolidated Edison Co. of New York

ARTHUR CARLE, Safety Director, Northwest Paper Co.

J. M. CHASE, Manager, Division of Maintenance & Equipment, Flight Safety Foundation

S. R. CHRISTOPHERSEN, President, Smaller Business of America, Inc.

ALLEN L. COBB, Director, Safety & Fire Prevention, Eastman Kodak Co.

DR. WALTER A. CUTLER, Assistant Director, Center for Safety Education, New York University

J. B. DeLAUNE, Plant Protection Superintendent, Cities Service Refining Corp.

RUSSELL DeREAMER, Manager Safety Services, General Electric Co.

JOHN A. DICKINSON, Chief, Section of Safety Codes, National Bureau of Standards

A. J. DITTMER, Office Manager, Guttman & Co.

T. R. DONOGHUE, Safety Director, Pittsburgh Plate Glass Co.

R. P. DOUGLAS, Safety Director, The Detroit Edison Co.

safety materials. In the past year, the Conference:

- Prepared a Section Activities Manual to upgrade the programs of the various Sections.
- Took initial steps toward a working organization in the Council for the trade and service industries. Presently warehouses, merchandisers, hotels, and other similar establishments have no organization within the Council. The Conference thus made progress toward developing specific safety services for these major industries.

SECTION EXECUTIVE COMMITTEES

While the Industrial Conference concerns itself with projects which affect all business, the Executive Committees of the Industrial Sections are concerned primarily with problems of a particular industry. There are 27 Industrial Sections. Each has its own Executive Committee, made up of repre-

sentatives of member companies, association executives and others from the industry which the Section represents. The function of these Executive Committees is to:

- Study the accident problems within their industry and develop solutions.
- See that the industry has adequate representation in the Council's industrial safety program.
- Promote greater safety activity within the industry.
- Publicize accident prevention information relating to the industry.

The numerous activities of the Sectional Executive Committees are reported on pages 8 and 9. But first, reports on the broader aspects of the industrial safety program which relate to occupational safety in general.

H. B. DUFFUS, Manager, Accident Prevention Service, Westinghouse Electric Corp.
 REUEL W. ELTON, General Manager, American Trade Association Executives
 D. A. FARRELL, Director of Safety, United States Steel Co.
 R. H. FERGUSON, Assistant Director, Industrial Relations, Republic Steel Corp.
 ROBERT W. FICKES, Goodyear Tire and Rubber Co.
 A. GEORGE FISH, Safety Officer, City of San Diego
 WILLIAM B. FOLGER, Executive Director, The State Insurance Fund
 FLOYD E. FRAZIER, Director, Industrial Division, National Association of Mutual Casualty Companies
 PAUL M. GENTZEL, Safety Coordinator, Ohio Edison Co.
 OSCAR A. GLAESER, Assistant Manager of Western Operations U. S. Smelting Refining & Mining Co.
 VERNON S. GORNTON, Manager, Insurance Dept., Smith Douglass Co., Inc.
 HOWARD GRAMLICH, General Agricultural Agent, Chicago & North Western Ry. System
 G. O. GRIFFIN, Safety Director, Dravo Corp.
 JAMES J. GRIFFIN, Coordinator of Safety, Chicago Public Schools
 JOHN V. GRIMALDI, Assistant Manager, Accident Prevention Dept., Assn. of Casualty & Surety Cos.
 R. P. HAMILTON, Supt. of Safety, St. Louis-San Francisco Ry. Co.
 W. L. HANAU, Assistant Superintendent, Engineering Dept., Fidelity & Casualty Co. of N. Y.
 EARLE S. HANNAFORD, Supervisor, Employment & Training, Long Lines Dept., American Telephone & Telegraph Co.
 R. A. HARSCHNEK, Safety Director, Swift & Co.
 D. F. HAYES, Chief, Safety & Fire Protection Branch, U. S. Atomic Energy Commission
 W. G. HAZARD, Director of Industrial Hygiene, Owens-Illinois Glass Co.
 HAROLD I. HEMPHILL, Safety Director, Alcoa Research Mfg. Co.
 J. P. HIGHTOWER, Vice-President & General Manager, Grayhound Bldg. Corp. of New York
 F. J. HILLGRUBER, Safety Director, National Cash Register Co.
 ERNEST L. HOOD, Director, Safety & Training, C. Brewer & Co.
 J. W. HOWLAND, M.D., School of Medicine & Dentistry, University of Rochester
 GEORGE A. JACOBY, Director of Personnel Services, General Motors Corp.
 R. S. JAMES, Superintendent, Safety & Fire Prevention, Denver & Rio Grande Railroad
 ARTHUR S. JOHNSON, Vice-President & Manager, Engineering Dept., American Mutual Liability Ins. Co.
 G. SCOTT KALLENBAUGH, Asst. Supt., Div. of Safety & Hygiene, Industrial Commission of Ohio
 W. DEAN KEEFER, Second Vice-President, Lumbermens Mutual Cas. Co.
 F. W. KELSEY, Supervisor, Safety & Welfare, Jones & Laughlin Steel Co.

E. W. KEMPTON, Assistant Vice-President, Industrial Relations, United States Steel Corp.
 R. M. KRAMER, Branch Acc. Prev. Mgr., Employers Mutual Liability Insurance Co.
 E. B. LANDRY, Safety Director, Office of Postmaster General, U. S. Post Office Dept.
 ALFRED R. LATEINER, Supervisor, In-plant Training, The City College of New York
 IVAN F. LAGORE, Manager, Accident Prevention Bureau, Portland Cement Association
 HAROLD F. LILLIE, Director, Lansing Safety Council
 S. M. MacCUTCHEON, Director of Safety, Dow Chemical Co.
 G. S. MANSFIELD, Safety & Personnel Dir. Western Printing & Lithographing Co.
 MISS MARION E. MARTIN, Commissioner of Labor & Industry, State of Maine
 MISS ERNA MAYRER, R. N., E. I. du Pont de Nemours & Co., Inc.
 C. P. MCBRIDE, Personnel Manager, Pabst Brewing Co.
 JAMES MCCLIMANS, Supervisor of Safety, Transformer Division, Westinghouse Electric Corp.
 RALPH E. MEIGS, Assistant Vice-President, Liberty Mutual Insurance Co.
 E. J. MEYERS, Assistant Manager, Safety & Fire Protection Division, E. I. du Pont de Nemours & Co., Inc.
 CHARLES A. MILLER, Safety Director, The Texas Co.
 MYRON L. MILLER, Supervisor of Safety, Westinghouse Electric Corp.
 A. E. MINOR, Safety Supervisor, The Ontario-Minnesota Pulp & Paper Co., Ltd.
 WALTER E. MONTGOMERY, Safety Director, Quebec Asbestos Mining Assn.
 ROBERT S. MOORE, Safety Director, Grumman Aircraft Eng. Corp.
 GORDON MORRISON, Employee Relations & Safety, Kellogg Co.
 D. T. MOULD, Safety Director, General Motors Corp.
 D. E. MUMFORD, Manager of Safety, New York Central System
 J. HOWARD MYERS, Director, Safety & Fire Prevention, The Atlantic Refining Co.
 J. E. NICHOLS, Safety Director, Reynolds Metals Co.
 JAMES NOLAN, Safety Engineer, Bethlehem Steel Co.
 GEORGE F. NUERNBERGER, Safety Engineer, A. B. Dick Co.
 CARL J. PETERSON, Staff Safety Engineer, Chrysler Corp.
 JOHN G. PEW, JR., Vice-President, Sun Shipbuilding & Dry Dock Co.
 M. C. M. POLLARD, Safety Director, National Gypsum Co.
 J. S. QUEENER, Manager, Safety & Fire Protection Div., E. I. du Pont de Nemours & Co., Inc.
 GEORGE DEWEY REED, Safety Engineer, Lansing Employers Underwriters
 J. M. REID, General Manager, Hudson Coal Co.
 H. F. REINHARD, Consulting Engineer, Union Carbide & Carbon Corp.

W. H. ROBERTS, Superintendent of Safety, Chicago & North Western Ry. System
 W. T. ROGERS, Safety Consultant, Ebasco Services, Inc.
 ROBERT T. ROSS, Manager, Employee Services, Industrial Relations, Ford Motor Co.
 R. C. SARENS, Superintendent of Safety, New York, Chicago & St. Louis R. R. Co.
 GORDON P. ST. CLAIR, President, Medical Supply Co.
 CLYDE SCHLUETER, Manager, Accident Prevention Department, Employers Mutual of Wausau
 ROBERT S. SCOTT, Safety Director, Manufacturers Association of Montgomery County
 H. S. SIMPSON, Safety Engineer, Caterpillar Tractor Co.
 JOHN E. SMITH, Director of Safety, Spencer Chemical Co.
 W. S. SMITH, Director of Safety, Ford Motor Co., Rouge Plant
 DR. H. J. STACK, Director, Center for Safety Education, New York University
 MRS. JAY STANLEY, R. N., Union Carbide & Carbon Corp.
 GEORGE H. STEEL, Safety Director, Ralston Purina Co.
 REUEL C. STRATTON, Supervising Chemical Engineer, Travelers Insurance Co.
 J. M. TRANSUE, Security Director, Philco Corp.
 CHARLES L. TROMMER, Chief Safety Branch, Personnel Department, Mohawk Carpet Mills
 COL. W. L. TUBBS, Assistant for Ground Safety, DCS/Personnel, Hq., U. S. Air Force
 A. F. TYRA, Head of Safety Division, Industrial Relations Dept., Union Carbide & Carbon Corp.
 M. G. VAN BUSKIRK, Executive Secretary, Trade Association Executives Forum
 DONALD VAUGHAN, Manager, Engineering & Inspection Dept., Aetna Casualty & Surety Co.
 LEA P. WARNER, JR., Personnel & Safety Manager, Warner Co.
 J. H. WATERMAN, Manager, Ground Safety, Trans World Airlines
 CAPT. GEORGE WAUCHOPE, Executive Vice-President, Farrell Lines
 C. H. WEISER, Covina, Calif.
 W. R. WILLIAMS, Administrator, Suburban Cook County Tuberculosis Sanitarium Dist.
 W. O. WILSON, Manager of Safety, Standard Oil Co. (Ind.)
 E. C. WOODWARD, Safety Director, A. O. Smith Corp.
 STANLEY WRIGHT, Supervisor, Safety and Housekeeping Dept., Inland Manufacturing Div., General Motors Corp.
 DR. W. P. YANT, Director of Research & Development, Mine Safety Appliances Co.
 JOHN W. YOUNG, Consultant, Industrial Safety, International Harvester Co.
 A. H. ZEILINGER, Superintendent of Safety, The Colorado Fuel & Iron Corp.
 CHARLES R. ZESKEY, JR., Chief Engineer, T. H. Mastin & Co.





INDUSTRIAL SECTION ACTIVITIES

While the 27 Industrial Sections of the Council share and participate in the activities mentioned above, the Sections work primarily on projects of particular importance to their industries and operations. These Section projects are summarized below:



AERONAUTICAL INDUSTRIES

Completed—survey on use of eye protection.
Started—a survey of special industry accident hazards.



AIR TRANSPORT

Completed (1) specifications for aircraft fueling vehicles; (2) survey of practices in painting propeller tips; (3) six safety instruction cards.

Started (1) series of safety instruction cards; (2) data sheet on fueling and oil servicing; (3) survey of injuries to commercial airport and aircraft (excluding airline) personnel.



AUTOMOTIVE & MACHINE SHOP

Completed (1) revision of safe practices pamphlet, Safety Inspections; (2) survey to determine factors related to good safety records by individual employees.

Started (1) revision of two data sheets; (2) production of two new data sheets; (3) program for greater participation in section activities among western and southern companies.



CEMENT & QUARRY

Completed (1) data sheet, Grounding Mobile Electric Equipment (with Mining and Coal Mining Sections); (2) detail sheet, Grating in Storage Bins; (3) manual, Safety in Quarry Operations.



CHEMICAL

Completed (1) data sheet, Vapor Degreasers; (2) revisions of two data sheets, Metallic Sodium and Zirconium; (3) survey, Use of Hardened Glass on Protective Devices for Welders in Chemical Plants; (4) illustrated book, Safety Devices & Ideas.



COAL MINING

Completed (1) data sheet, Safety Specifications for Locomotives in Coal Mines; (2) data sheet, Grounding Mobile Electric Equipment.



CONSTRUCTION

Completed (1) set of twelve special posters; (2) colored motion picture on construction equipment, The Gamblers (produced by Caterpillar Tractor Co. in cooperation with the Section); (3) a group service plan with the Associated General Contractors of America to provide basic safety materials to 60 local AGC chapters and thence to 3035 local AGC members.

Started (1) book of five-minute talks for construction foremen; (2) outline for 24-subject training course.



ELECTRICAL EQUIPMENT

Completed—five data sheets—Radio Frequency Heating, Electromagnets Used with Crane Hoists, Portable Insulation Test Sets, Extension Cords & Fittings, Emergency Lighting.

Started (1) project with NEMA on fires caused by outdoor lighting; (2) project with Toy Guidance Council on electrically operated toys; (3) project to mark extension cords with yellow tape to increase visibility; (4) survey of injuries from use of electrical equipment.



FERTILIZER

Completed (1) data sheet, Anhydrous Ammonia; (2) safetygraph, Two-Wheel Handtrucks; (3) set of twelve special posters; (4) establishment of a Fertilizer Safety Section as part of the South Carolina Industrial Conference which will meet twice a year.

Started—a study of worker motivations, to be conducted by University of Chicago, Industrial Relations Center.



FOOD

Started—programs to produce special publications in cooperation with U. S. Brewers Foundation, Milk Industry Foundation, and for ice, cold storage and locker plants.



GLASS & CERAMICS

Completed—data sheet, Furnace Rebuilds.

Started—four data sheets—Radiant Heat Control, Exhausting Brick Saws, Furnace Room Fire Prevention, and Air Replacement.



MARINE

Started (1) second set of twelve special posters; (2) special industry manual, Oil-Fired Marine Boilers.



MEAT PACKING & TANNING

Started (1) series of eleven films covering pork, beef, small stock, and sausage manufacturing; (2) survey of hazards in leather finishing.



METALS

Completed (1) data sheet, Oxygen Lances; (2) detail sheet, Safety Latches for Gondola Cars; (3) revision of contest rules; (4) a list of sources of visual-aids.



MINING

Completed (1) detail sheet, Tow Bars for Heavy Duty Trucks; (2) color slide film, Bar It Down; (3) data sheet, Grounding Mobile Electric Equipment.
Started—a one-year campaign on falls-of-ground accidents; special booklets, safetygraphs, and brochures to be issued.



OCCUPATIONAL HEALTH NURSING

Completed—a 10-minute soundslide film on the medical department's part in new employee induction (produced by Marathon Corp. in cooperation with the Section).



PETROLEUM

Completed (1) series of petroleum fire demonstrations, primarily by Great Lakes Division of Section; (2) revision of contest rules.
Started—a data sheet on cleaning petroleum containers and drums.



POWER PRESS & FORGING

Started (1) illustrated manual on power presses; (2) data sheets on setting up and removing hammer dies and setting up and removing upset dies.



PRINTING & PUBLISHING

Completed (1) set of twelve special posters; (2) data sheet on guillotine cutters; (3) code on Controls & Signalling Devices for Graphic Arts Equipment (co-sponsored by Research & Engineering Council of Graphic Arts Industry); (4) twenty-hour safety training course for supervisors (in cooperation with Popular Mechanics Magazine & Graphic Arts Association of Illinois).
Started (1) study and instruction guides for safety training courses (in cooperation with Education Council of Graphic Arts Industry); (2) series of safety instruction cards; (3) four data sheets.



PUBLIC EMPLOYEE

Started—a series of studies of accidents among public employees. One such study started for garbage collectors; others planned for police and firemen, state and county employees, and road maintenance crews.



PUBLIC UTILITIES

Completed (1) new safety contest for Water Works; (2) program of fleet safety training (in cooperation with American Gas Association); (3) kit of publications on Crane Contacts; (4) pamphlet, Watch Those Wires; (5) revision of safe practices pamphlet, Linemen's Rubber Protective Equipment; (6) one-week training course for public utilities safety personnel; (7) 30 Tailboard Safety Talks.



PULP & PAPER

Completed (1) five data sheets—Acid Plant, Caustic Liquor Room, Explosive Splitting Wedges & Guns, Paper Tube Winders, and Corrugators; (2) four-page employee booklet, In the Clear (French and English editions), and set of twelve posters on logging (both in collaboration with Wood Products Section); (3) five safety instruction cards; (4) technical release on asphalt roofing mills.



RAILROAD

Completed (1) Close Clearance, a cartoon book; (2) detail sheet, Blue Tag Safety Board for Railroad Diesel Shops; (3) a list of films for railroads (4) safety instruction card on standard railroad hand signals.
Started—a data sheet, Operation of Hand Brakes.



RUBBER

Completed (1) data sheet, Tire & Tube Vulcanizers; (2) a survey, Smoking Practices in Rubber Plants.
Started—a project on methods of guarding calender stacks.



TEXTILE

Completed—data sheet, Cotton Pickers.
Started (1) series of seven data sheets on textile machinery; (2) four safetygraphs on textile safe practices.



WOOD PRODUCTS

Completed (1) four data sheets — Radial Saws, Lumber Handling & Piling, Wood Turning Lathes, Wood Jointers; (2) detail sheet, Veneer Clipping Board; (3) booklet on logging safety, In the Clear; (4) set of twelve posters on logging; (5) illustrated book, Jig & Fixture Design for Woodworking Safety.



HOSPITAL SAFETY COMMITTEE

Completed (1) participation in Institute on Hospital Safety (sponsored by American Hospital Association); (2) establishment of safety contest for hospitals; (3) manual, Hospital Safety & Fire Prevention; (4) twelve posters and safety instruction cards.
Started—a safetygraph on hospital patient safety.



INJURY RATE REDUCED

For the seventh Consecutive year the injury rates of Council members showed a substantial reduction:

- ▶ Injury frequency rate reduced 11% from 1952.
- ▶ Injury severity rate dropped 6%.
- ▶ Injury frequency rate of Council members about 60% lower than non-member industrial plants.

The national accident toll however (11,200 killed and 1,680,000 injured in non-agricultural work), remained essentially unchanged in 1953 from 1952.

This past year the Council received over 8,000 accident summary reports from business concerns, a record number. These formed the basis for the Accident Rates Pamphlets which present accident data for 40 major industries and about 150 minor industries.

Much new data on industrial accidents was also included in the 20 pages of the 1954 edition of Accident Facts given to analysis of occupational accidents. New material was included on older workers, falls, seasonal variations, unsafe acts, and size of plant.

TESTS & AWARDS

The Council has two plans for the recognition of outstanding safety performance by business firms. On a non-competitive basis, individual companies receive recognition for perfect safety records and for significant reductions under previous years and under industry averages. During the past year about 9,000 company and plant records were analyzed under this plan, and a total of 1,744 awards were made:

- ▶ 1,199 awards for perfect safety records (no lost-time accidents).
- ▶ 545 awards for outstanding non-perfect safety records.

The other plan is a series of Section Safety Contests, in which the companies compete for honors. During the year, about 5,000 units competed, an increase of 17% over the previous year, and a total of 1,600 awards were made.

New contest divisions were started for Water Works in the Public Utilities Section and for Logging in the Pulp & Paper Section. A contest was started for the Fertilizer Section and plans have been completed for a Hospital contest this year. The number of Section contests now totals 20.

& STANDARDS

The Council maintains close liaison with the American Standards Association, whose work in the development of codes and standards is so important to the industrial safety program. In the past year the Council has co-sponsored work on one new code and has been represented on one other. Total Council participation in the development of ASA

codes and standards is now as follows:

- Representation on 6 boards and policy groups.
- Sponsors or co-sponsors of 16 codes and standards.
- Represented on 56 codes and standards.

SAFETY TRAINING INSTITUTE

The Council offers to representatives of member companies two 40-hour courses in industrial safety procedures. This past year six basic courses and two advanced courses were held. 251 students were enrolled, an increase of 13 over the previous year.

The advanced course this year featured authorities in such fields as methods engineering, public speaking, employee relations, and visual aids.

The basic courses again dealt with such subjects as accident records, chemical hazards, plant safety training, and personal protective equipment. However, new courses to deal with individuals' problems in safety administration were added.

One special training course was held for supervisors in the public utilities industry. Eight safety directors from member public utility companies, plus Council engineers, served as instructors.

PUBLICATIONS PROGRAM

Many new publications were added to the already large array of materials available through the Council. There were new materials on safety administration, supervision, and a large number of training materials. Noteworthy new publications of general interest include:

- ▶ **The Woman on the Job**—96-page clothbound book surveying safety and health problems of the woman worker.
- ▶ **How to Start a Safety Program**—a 48-page, step-by-step outline, non-technical, for business owners and managers.
- ▶ **Plus Costs of Accidents**—8-page booklet on the why and how of accident prevention for the small-firm owner. Part of the Council's Small Business Program.
- ▶ **What's In It For Me?**—16-page four-color booklet explaining plant safety programs from the employee point-of-view.
- ▶ **Vacation Daze**—8 pages in four colors on how to stay alive over the summer holidays.
- ▶ **Holiday & Seasonal Booklets**—4-page reminders for the Christmas and Labor Day weekends.
- ▶ **Really Stacked**—16 pages of instruction on piling and handling various types of materials.
- ▶ **Ten Commandments of Machine Operation**—Basic rules for machine operators in wall chart form.

As listed in the various Section reports above many new technical publications were produced; the twelve-month totals were:

- ▶ 13 new Data Sheets.
- ▶ 13 safety articles from trade magazines reprinted.
- ▶ 18 Data Sheets and 1 Health Practices Pamphlet revised, enlarged, and reset in more attractive and readable format.



- 100 Data Sheets and 9 Safe Practices Pamphlets reviewed for technical accuracy and reprinted.

Two major projects made substantial progress. The first a book on the foreman's role in accident prevention, has been written and will be published early in 1955. The second is a major revision of the Accident Prevention Manual for Industrial Operations. Subject matter is being completely reviewed and brought up to date. Additional material which will almost double the size of the present volume is being added. The new edition is scheduled for publication in October, 1955.

MAGAZINES

The five magazines published by the Council for industrial personnel, with one exception, showed appreciable increases in circulation in 1953 and for the first eight months of 1954. Here are circulation figures (August, 1954) and 12-month growth figures:

	CIRCULATION	YEAR'S GROWTH
National Safety News....	31,619	+ 3%
Industrial Supervisor....	137,950	+13%
Safe Worker	414,742	+ 5%
Safe Railroader	126,232	+ 3%
Safe Builder	41,933	- 3%

The Council also publishes 27 Section newsletters, with a combined monthly circulation in excess of 40,000.

National Safety News, the number 1 advertising medium for safety equipment manufacturers, carried 1,224 pages of advertising in 1953. Advertising revenue was \$296,000, an increase of \$51,000 over 1952. In the first eight months of 1954, use of advertising space was 10% below the comparable period of 1953.

POSTERS

Over 8½ million industrial posters were distributed in 1953. These had an aggregate value of \$387,000. Jumbo (billboard size) posters are now being used by over 1,800 companies each month, an increase of 8% over 1952.

- Special sets of posters were produced on hazards in printing, logging, fertilizer plants, and construction work.
- Safety banners, measuring 3½ by 10 feet, and carrying safety slogans and illustrations will be introduced at the Congress. They are designed to hang over plant entrances, in meeting places, and other areas where large groups pass. The banners will be furnished primarily on a subscription basis, details to be announced by mail soon.

SMALL BUSINESS PROGRAM

The Council's Small Business Program, financed by a special grant, is a campaign to stimulate small companies to do accident prevention work. The approach has been to work through associations, manufacturers' groups, chambers of commerce, and service clubs to create awareness of the problem and to indicate sources of help. The staff of the Small Business Division also helps associations and other organizations to plan safety programs and to develop safety manuals and other publications for the small plant.

Special activities in the past year include:

- **Plus Costs of Accidents.** 100,000 copies of this 8-page

booklet for small plant operators were printed for distribution through insurance companies, local safety councils, and trade associations.

- **Association Awards.** Each year awards of commendation are made to associations giving outstanding aid to small plants. This year 11 associations qualified; 7 others reported substantial activities.
- **Neighborhood Safety Conferences.** With the cooperation of the Illinois Manufacturers Association and other groups, a series of short evening meetings on safety were held in various communities.
- **Surveys.** With the cooperation of the Wisconsin Council of Safety, small companies were surveyed on their safety activities, needs, and sources of assistance. The several hundred replies received will help plan future activities of the Small Business Program.

PRESS & RADIO PUBLICITY

1953 was a banner year for publicity for industrial safety. Newspapers, trade magazines, company publications, radio and television all gave a great deal of space to accident prevention material, much of which was provided by the Council's Public Information Department.

- COAL AGE magazine earned a Public Interest Award from the Council for its coverage of accident prevention. The magazine used 19 major safety articles and many accident prevention news items.
- Over 100 stories on the National Safety Congress were mailed out to trade journals. 50 trade press representatives were in attendance at the Congress. Complete texts of Congress speeches were offered to the trade press, and more than 100 of these were used as feature stories.
- Releases on comparative accident rates were sent out for 20 major industries and were widely printed.
- Six exclusive articles were written by Council staff for trade magazine use.
- News stories and photographs were sent out on groups of fertilizer, pulp and paper, and public utilities personnel attending the Safety Training Institute. Similar news and picture stories were sent out for meetings and training courses in the graphic arts industry.
- Major Council publications were reviewed in many of the trade magazines.
- Complimentary copies of Section newsletters are sent to trade journals to keep editors informed of developments in safety in their industries.

Safety also received an excellent "press" in company publications:

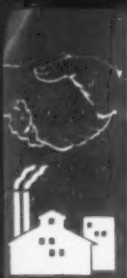
- "Working Daze", a series of 10 cartoons were sent to 300 company publications.
- "The Lighter Side", a cartoon panel, was sent to 880 publications each month.
- 700 other cartoon and picture series were sent out.
- Twenty company publications were given awards by the Council for exceptional coverage of accident prevention and for original safety features.

- National newspaper publicity was given to industrial safety, especially to safety awards to the aviation industry and the railroad industry. Many companies receiving individual awards from the Council also received newspaper publicity on a local level.

- Safety awards were also given national radio and television time. For example, U. S. Steel, Proctor & Gamble, Swift and others had Council award presentations on their air shows.

- Scripts on industrial safety were sent to 478 radio stations and spot announcements on working safely were sent to 2,200 radio stations.





NATIONAL SAFETY CONGRESS

The 1953 Congress again broke all attendance records, with an estimated 12,000 people on hand during the week. Over 200 meetings on industrial safety subjects were held.

187 safety equipment manufacturers exhibited at the Congress this year. Exhibit fees totalled \$57,000.

AMERICAN SOCIETY OF SAFETY ENGINEERS



The American Society of Safety Engineers, the independent organization for professional industrial safety engineers, shares office space with the Council and is closely associated with the Council's industrial safety program. ASSE chapters, for example, prepare many of the Council's research and safety engineering publications. ASSE also co-sponsors the general safety subject sessions at the annual National Safety Congress. On the other hand, the Council participates in the financial support of ASSE in recognition of the importance of the professional society to the industrial safety movement.

ASSE prepares its own annual report to its members, but of interest is this brief summary of ASSE's program during the past year:

- 6,250 members; net increase of 75 new members last year.
 - 58 local ASSE chapters, 1 new chapter chartered last year.
 - Two new data sheets, Chlorine Detectors and Abrasive Blasting, written by Western Pennsylvania Chapter, for the Council.
 - 50 data sheet projects undertaken for the Council by local chapters.
 - A booklet, Organizational Position of the Industrial Safety Engineer, published. Subject matter includes survey of experience, education, salaries, and place in company organization.
 - Five research projects approved, including one on Safety Toe Shoes on which a prospectus has been prepared.
 - The Albert D. Caddell Award presented to Greater Chicago Chapter.
 - Published an index of available safety standards.
- Honorary memberships in ASSE awarded to four distinguished men: James I. Banash, William H. Cameron, John J. Forbes, and John Stilwell.



MEMBERSHIP GROWTH

Growth of Council membership has not been as great in 1954 as in recent years. The first eight months of 1954 showed 481 new industrial members with \$22,400 annual dues as compared to 448 new members and \$32,200 dues in a comparable period in 1953.

Furthermore, cancellations of memberships in Industrial Sections rose for the third consecutive year. Thus net growth was the smallest in recent years.

The newer Sections, Printing & Publishing, Electrical Equipment, and Fertilizer, have excellent growth records, as do Chemical, Construction, Metals, and Petroleum among the older Sections.

Net losses in membership are being recorded for the Textile, Automotive & Machine Shop, Power

Press, and Coal Mining Sections.

Since the volunteer membership work of Sectional Executive Committees has been greater than in any past year, it may be assumed that business readjustments, both general and in specific industries, are responsible for the less favorable showing.

Reflecting the increased interest of trade associations in safety, 20 new association members were added in the first eight months of this year.

BUDGET

Money to finance the Council's industrial safety program in 1953 came from the following sources:

Dues and sale of materials.....	\$2,275,000
Advertising and National Safety Congress..	295,000
Contributions for special projects.....	15,000

Total Industrial Income.....	\$2,585,000
Total Industrial Expense.....	2,100,000

For discussion of sources of revenue and kinds of expenses see pages 4 and 5.

NEEDS

Gratifying as it is to report another year of accident reduction for Council members and a most active year in the Council's industrial safety program, we must still face the stark reality that far too many men and women meet sudden death and injury in the course of earning their living.

The industrial safety program must be broadened and intensified. It must be made to reach many workers with much greater force in coming years. This is the basic need. More specifically, however, the Council's industrial safety program must:

- ▶ Create stronger safety programs within certain industries with high injury rates—logging and lumbering, construction, city and state governments (public employee), mining, and certain trade and service industries.
- ▶ Develop stronger incentives and better materials for small businesses, in which some traditional methods of accident prevention appear to be economically unfeasible or unworkable.
- ▶ Develop better information on the psychological make-up on the safe worker. Certain types of workers, and certain individual workers, are more often involved in accidents than others. Yet beyond this fact, little is known of the psychological differences between the "safe" and the "unsafe" worker. Closely related is the problem of finding the best means for motivating and instructing workers.
- ▶ Develop closer cooperation between equipment manufacturers and safety engineers in design and guarding of machinery and tools at the source. Much equipment is sold "stripped down" of safety devices. Thus equipment is too often used without adequate safety measures. In any case the burden of making equipment safe is too often left to the user—who may not take action until after an accident.

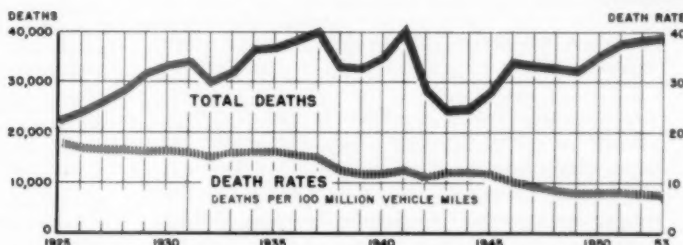


Vice President for
Traffic and Transportation
FRANKLIN M. KREML
Director, Traffic Division
International Association of
Chiefs of Police

TRAFFIC AND TRANSPORTATION

"The National Safety Council has made and is making outstanding contributions to traffic safety. With public and official interest at a higher pitch than ever before, still greater opportunities for service lie ahead."

—Franklin M. Kreml



Highway traffic accidents killed 38,300 in 1953, up 1% from 1952. But increase in motor vehicle use dropped the mileage death rate to an all-time low. The first half of 1954 brought a 5% reduction in deaths and an even greater decline in the death rate. Non-fatal injuries in 1953 totalled 1,350,000, the same as in 1952. Railroad deaths were 4% below the preceding year; streetcar deaths, unchanged; aviation, 4% down.

The National Safety Council is concerned with all the accepted remedies for traffic accidents. Fully recognizing special responsibilities and knowledge of other groups, the Council strives to interpret the interests and promote the welfare of the entire public.

The Traffic and Transportation Conference, whose members represent Council Sections and other organizations, has continued study of activities of all the national traffic agencies, gaps in the national program viewed as a whole, and practical means by which agencies can work together in filling gaps and presenting a united front in the fight for traffic safety. A special Traffic Study Committee of the Board of Directors reported with recommendations on the needs and opportunities for development of the Council's traffic programs.

JOINT ACTIVITIES

Some important traffic functions can be performed only through joint action of all interested groups. During the past year Council members, staff, and Chapters took leading parts in the following:

WHITE HOUSE CONFERENCE ON HIGHWAY SAFETY, February, 1954, reaffirmed the Action Program of previous President's Conferences and emphasized the urgent need for organized support by all groups, particularly business leaders, for state and community traffic programs.

NATIONAL COMMITTEE ON UNIFORM TRAFFIC LAWS AND ORDINANCES completed thorough review and reprinting of the Uniform Vehicle Code, the recognized model for state legislation. Important changes included tightening of speed limits and bringing up to date requirements for lights, brakes and other equipment. Through the Inventory, the Chapters and otherwise, the Council promotes adoption of this Code and the companion Model Traffic Ordinance.

NATIONAL CONFERENCE ON UNIFORM TRAFFIC ACCIDENT STATISTICS reviewed the accident reporting system recommended to states and cities. Simplified driver report and summary forms were approved, also a revised Uniform Definitions Manual including a new definition of personal injury accident. The Council provides the Conference Secretary, does most of the detail work on forms, conducts training courses for state and city personnel, and promotes use of the standard system through field work and correspondence. (See also the section on Accident Records below.)

NATIONAL COMMITTEE FOR TRAFFIC SAFETY, organized to promote cooperation among 80 national organizations, voted to disband and to turn over to the Council its functions of aiding and recognizing the work of its member groups.

"THE NATIONAL TRAFFIC SAFETY PROGRAM—A SURVEY AND APPRAISAL" is the title of an 80-page report prepared for three insurance companies by a three-man committee, two of whom were the Council's Vice President for Traffic and Transportation and a Council staff member. Based on a thorough study of needed activities at the national level, the recommendations are presented under headings: Public Support, Coordination, Communications, Field Service, Personnel, and Research.



STATE AND COMMUNITY ORGANIZATIONS

It has long been agreed that accidents can be prevented only in the states and cities in which they occur; that the "national problem" is simply the sum of local problems all over the country; that organized effort and a specific program are needed in every state and every municipality.

This was emphasized at the White House Conference.

The Council's Board of Directors had, in 1953, adopted a policy declaring close relationship between traffic safety and traffic facilitation and recommending "in states and communities a comprehensive organization, adequately financed, dealing with all phases of accident prevention and all phases of the traffic problem."

The Council's activities in organizing, up-grading

and assisting state and community chapters are covered in a later section of this report. During the past year a large part of this effort has been aimed at the traffic objectives outlined above. Three of the most important items were:

- Upon request of the Cleveland Chapter, its structure and operations were surveyed and a report rendered, with particular emphasis on needs and opportunities for a comprehensive, coordinated traffic program in the metropolitan area. Measures for effectuating these recommendations are now being studied by a local committee.
- The annual Institute for Chapter Managers, May, 1954 was devoted entirely to traffic. It was held at Northwestern University Traffic Institute and was conducted in cooperation with Institute staff.
- The meeting of Chapter Managers preceding the 1954 Congress will be devoted largely to exploring and pinpointing, in the light of the White House Conference and other recent developments, just what a state or community safety organization can and should do to meet the problems of traffic safety and facilitation.

Traffic & Transportation Conference 1953-1954

Chairman: MERWYN A. KRAFT, Director, Department of Personnel & Accident Prevention, American Transit Assn.

Vice-Chairman: J. P. HIGHTOWER, Vice-President and General Manager, Greyhound Bldg. Corp. of New York

Vice-Chairman: HON. THOMAS POWERS, Judge, Municipal Court, Akron, Ohio

DR. W. W. BAUER, Director, Health Education, American Medical Assn.

RICHARD O. BENNETT, Director, Automotive Division, National Assn. of Automotive Mutual Insurance Cos.

COL. PAUL V. BETTERS, Executive Director, U. S. Conference of Mayors

DON BLANCHARD, Secretary, Technical Board, Society of Automotive Engineers

T. N. BOATE, Manager, Accident Prevention Dept., Assn. of Casualty & Surety Cos.

W. H. BOUPELL, Board of Directors, National Automobile Transporters Assn.

ROBERT D. BUGHER, Asst. to Director, American Public Works Assn.

FRED BURGGRAF, Director, Highway Research Board

ARTHUR C. BUTLER, Director, National Highway Users Conference

A. W. CANTWELL, Director, First Aid, Water Safety & Accident Prevention, American Red Cross

HARRY P. COOPER, JR., Secretary, National Association of Mutual Insurance Cos.

ERNEST G. COX, Chief, Section of Safety, Bureau of Motor Carriers, Interstate Commerce Commission

MIKE CUSACK, Manager, Safety Department, U. S. Jr. Chamber of Commerce

NORMAN DAMON, Vice-President, Automotive Safety Foundation

M. R. DARLINGTON, JR., Managing Director, Inter-Industry Highway Safety Committee

HARMER E. DAVIS, Director, Institute of Transportation & Traffic Engineering, University of California

WILLIAM J. DAVIS, Secy. & Mgr., National Automobile Theft Bureau

H. S. DEWHURST, Secretary, Safety Section, Association of American Railroads

JAMES P. ECONOMOS, Director, Traffic Court Program, American Bar Assn.

H. S. FAIRBANK, Deputy Commissioner, Bureau of Public Roads

T. W. FORBES, Director, Committee on Highway Safety Research, National Research Council

OSCAR E. H. FROELICH, Private Truck Council of America

WILLIAM M. GREENE, Chairman, Assn. of Traffic Safety Coordinators

CHARLES J. HAHN, Executive Secretary, National Sheriff's Assn.

H. H. HALE, Executive Secretary, American Association of State Highway Officials

L. S. HARRIS, Executive Director, American Association of Motor Vehicle Administrators

CARL F. HANSSON, President, International Association of Chiefs of Police

PATRICK HEALEY, JR., American Municipal Assn.

MRS. J. HOWARD HODGE, Safety Chairman, General Federation of Women's Clubs

DAN HOLLINGSWORTH, Manager, Oklahoma City Safety Council

ALBERT W. HOUGHTON, Chairman, Special Committee on Traffic Court Program, A.B.A.

ARTHUR S. JOHNSON, Chairman, Engineering Committee, National Association of Automotive Mutual Insurance Cos.

JOSEPH KAPLAN, Secretary-Manager, Greater Los Angeles Chapter, NSC

C. M. KIMBALL, Chairman, Hwy-Rail Crossing Committee

EDWARD R. KLAMM, Manager, Accident Prevention Dept., Allstate Insurance Co.

MRS. FRED W. KNIGHT, Safety Chairman, National Congress of Parents & Teachers

A. W. KOEHLER, Secretary-Manager, National Association of Motor Bus Operation

M. A. KRAFT, Director, Dept. of Personnel & Accident Prevention, American Transit Assn.

JOHN V. LAWRENCE, Managing Director, American Trucking Assn.

BURTON W. MARSH, Director, Traffic Engineer & Safety Dept., American Automobile Assn.

THEODORE M. MATSON, Director, Yale Bureau of Highway Traffic

ELTON K. McQUERY, Assistant Director, Council of State Governments

ADMIRAL H. B. MILLER, Director, The President's Action Committee for Traffic Safety

JUDGE ALFRED P. MURRAY, U. S. Court of Appeals

SIDNEY E. NELSON, Chairman, Accident Prevention Committee, National Assn. of Insurance Agents

ORIN F. NOLTING, Assistant Director, International City Managers Assn.

HARRY M. PONTIOUS, Chairman, Accident Prevention Commission, National Assn. of Independent Insurers

EUGENE REYBOLD, Executive Vice-President, American Road Builders Assn.

KARL M. RICHARDS, Manager, Field Services Dept., Automobile Manufacturers Assn.

COL. RUSSELL A. SNOOK, Chairman, State & Provincial Sect., I. A. C. P.

DR. HERBERT J. STACK, Director, Center for Safety Education, New York University

J. R. THEXTON, Chairman, Home & Off-the-Job Safety Committee

M. M. TODD, Executive Secretary, Institute of Traffic Engineers

ARNOLD H. VEY, Chairman, National Conference on Uniform Traffic Accident Statistics

SIDNEY J. WILLIAMS, Chairman, National Committee on Uniform Traffic Laws & Ordinances

INVENTORY



A practical approach to sound localized effort is through the Annual Inventory of Traffic Safety Activities. The function of the Inventory is to measure the status and progress of traffic safety work in individual states and municipalities and thus to detect weak spots in each program. Inventory report forms comprise some 750 specific questions covering the entire range of state or community traffic operations.

Data thus gathered also permit national summary to show progress throughout the country and indicate measures most in need of attention.

Administered by the Council, the Inventory is a cooperative enterprise under the policy direction of the Advisory Committee to the Officials' Group of the President's Action Committee for Traffic Safety and the technical guidance of committees of official and technical associations. The report of the Public Officials' Group of the White House Conference recognized the value of the Inventory with this recommendation:

"That the governor and the chief executive of each county and municipality make an immediate and realistic appraisal of highway safety deficiencies, based on the Annual Inventory of Traffic Safety Activities and Inventory Analyses, and establish priorities to be followed in meeting these needs."

Forty-seven states and 846 cities over 10,000 population now use Inventory service, compared with 787 cities a year ago. In addition, for the first time, service was offered to municipalities between 5,000 and 10,000 population in seven states and 199 took advantage of it. Further growth in the number of municipalities served is limited only by the staff available to evaluate reports, prepare written analyses, and present these at local meetings of official, business and civic leaders.

As the cost of national staff for personal presentations of analyses in every city would be prohibitive,

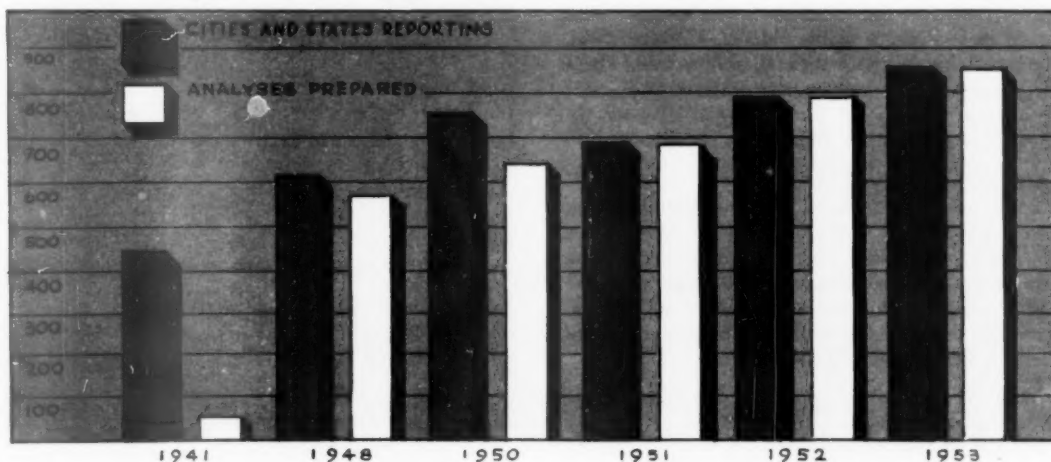
cooperation of state officials is enlisted to perform this function in municipalities under 75,000 population. Three-fourths of the states now do this and total state manpower thus contributed is higher in quantity and quality than ever before.

An important forward step during the past year has been to make the analyses available, after check by officials as to accuracy of reporting and evaluation, to the public information media so that all citizens may know the strong and the weak points, and the most urgent needs, in their state and city traffic programs. A booklet "Newspapers Can Help", approved by the media representative on the President's Action Committee, was widely distributed. News releases on state and city winners of the National Traffic Safety Contest, based on Inventory ratings, as well as the news release on Honor Roll cities which completed 1953 without a fatality gave recognition to outstanding performances and served as a spur to increased effort in other places.

In cooperation with the agricultural representative on the President's Committee, the Council's Farm Division inaugurated a county survey of rural traffic accidents and safety activities. A report to be filled out by the County Farm Safety Committee with the help of the County Extension Agent was sent to the Agents, who are found in all but a few of the nation's 3,000 counties.

A series of manuals on enforcement, engineering and other phases, for use in cities of around 50,000 population, is in preparation.

With growing importance attached to Inventory Analyses by public officials and others and additional use by newspapers, meticulous accuracy and convincing presentation are essential. Present efforts are along those lines, including technical review of all forms and standards, and training of cooperating state staffs.





OPERATION SAFETY

During the past year Operation Safety — the monthly theme program directed by the Public Safety Education Committee—has refined and developed new techniques, programs and materials to help state and local groups to take the traffic safety message directly to the walking and driving public. For the first time, Operation Safety has been able to recommend a pre-tested, community-wide program in the form of the May Vehicle Safety Check.

A step by step program, involving groups representing every phase of community life, was developed through a pilot project in Dothan, Alabama, co-sponsored by the Council, Inter-Industry Highway Safety Committee and LOOK magazine. Subsequently, special community vehicle check programs were sponsored in 25 selected cities, with many others joining in through use of Operation Safety kits and materials. The reported experience of these cities presents a resumé of planning and operation never before available.

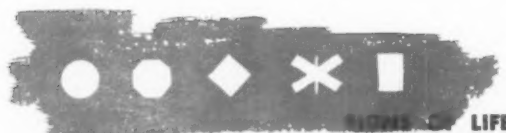


The Council also joined with the Inter-Industry Highway Safety Committee to co-sponsor the monthly theme program "Make Courtesy Your Code of the Road." A special release to all newspapers launched the campaign. Outstanding features of this new type traffic courtesy effort were "point-of-purchase advertising" material—bumper strips, dash stickers, wallet calendar cards and posters designed to reach the driver in traffic behind the wheel. A pilot program upon which to base national recommendations is being undertaken in Midland, Michigan.

New Operation Safety aids of the "point-of-purchase" type include "Stay Alert — Stay Alive" bumper strips and dash stickers, and warning strips for signalized crosswalks telling walkers, "Wait for the Green" and "Wait for the Walk".

Five Operation Safety films were furnished to 50 TV Stations and nine slogan slides to 100 stations.

Paid circulation figures for the monthly Operation Safety kits for the first six months of 1954 show a 7% gain over 1953. Total monthly distribution now is 1,626 kits. Armed Forces installations use 318 kits monthly to assist safety officers in their installation programs and also coordinate themes with those of nearby communities.



This educational campaign, carried on with co-operation of the railroads, aims at greater public understanding and observance of traffic signs, particularly those at rail-highway grade crossings. Since the start of the campaign, accidents at such crossings have been substantially reduced both in number and in relation to total traffic deaths, the latter ratio having been cut by more than 25%.

The campaign utilizes all public education media. Millions of leaflets and posters, plus copies of Council films, were distributed, largely through state officials. During the past year, the Council distributed Dave Garraway's three "Signs of Life" films to 150 TV Stations and two series of jingle transcriptions to 1,246 stations. Another new item was a traveling exhibit for use at local meetings.

The Council's new awards to American railroads for their public safety activities, including participation in the "Signs of Life" program, brought deserved recognition to 22 railroads.

The activities of the Council's Railroad Section, a part of the Industrial Conference, while dealing mainly with employee safety, also include attention to grade crossing and other hazards to the general public. The Air Transport and Marine Sections of the Industrial Conference likewise are concerned with public as well as employee hazards in air and water transport.

WINTER DRIVING HAZARDS

The major activity of the Committee on Winter Driving Hazards is the annual Winter Driving Test Program. The 1954 tests were of fully loaded tractor-trailer combinations, the fourth year of investigation of stability of articulated vehicles—why tractor-trailers jackknife and how this can be prevented. A comprehensive report on activity to date is being prepared.

Most previous tests were on frozen lakes. Last winter, ice on the concrete surface of an airport made the test course, permitting use of fully loaded units on a surface closely simulating roadway conditions. The Driver Technique Study, aimed at determining do's and don'ts for truck drivers, was run again, and for the first time, a city-type bus was run through stopping distance tests, loaded and empty.

Approximately 50,000 each of the 1953-54 editions of "Safe Winter Driving Facts for Truck Drivers" and "Here are Winter Facts for Passenger Car

Drivers" were distributed. These dealt with basic facts, safe driving practices and equipment. Other educational material included:

- Four news releases to daily and weekly newspapers, news syndicates and magazines, and commercial vehicle publications.
- "Uncle Melty" feature series of six cartoons in mat form to 5,500 newspapers and magazines.
- Five films starring Julie Bishop to 100 TV Stations.
- "Winterwise Your Driving", 5-minute film, to 150 TV Stations.
- Ten transcriptions to 927 stations, featuring Pat O'Brien, Art Linkletter, Frank Sinatra, Ronald Reagan, Dinah Shore, Phil Harris.

ACCIDENT RECORDS

In addition to work for the National Conference on Uniform Traffic Accident Statistics, already mentioned, perhaps the most important development of the year was inauguration of monthly reporting by states of non-fatal injuries as well as fatalities. Deaths represent only a part of the human and economic cost of accidents, and comparisons of one year with another or one state or city with another are incomplete if based on fatalities only. The problem has been to get good coverage of non-fatal injury cases, comparable from year to year and from place to place.

Thirty-eight states now report injury data to the Council monthly, and 45 at year-end. Many are admittedly incomplete. There is some indication that the 5% reduction in deaths in the first half of 1954 was not accompanied by a similar reduction in injuries. However, data do not yet justify firm conclusions. The very act of making monthly injury reports to the Council has led some states to increase efforts to make reports more complete.

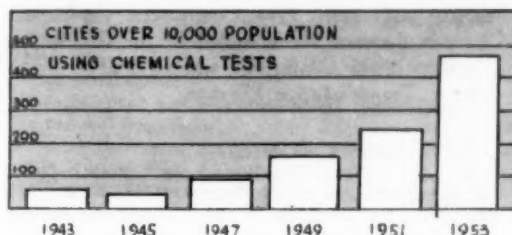
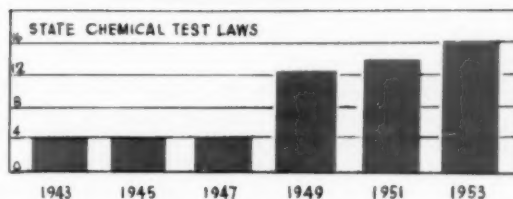
Other continuing activities include:

- ACCIDENT FACTS, the recognized "Bible" of authentic information on accident occurrence, circumstances and trends; motor vehicle accident statistics filled 29 pages. A series of brief stories on this information was widely used in newspapers.
- The twelve monthly death records of states and cities printed in PUBLIC SAFETY and distributed nation-wide through the press.

TESTS FOR INTOXICATION

The number of states authorizing by law, and the number of states and cities actually using, chemical tests to determine whether a driver is under the influence of liquor steadily increases. In addition to 16 states having such laws, tests are admitted as evidence in other states under judicial rulings, and thus are used to some extent in all but three states.

An important legislative development occurred in New York State, whose law now provides that refusal to submit to a chemical test is ground for immediate revocation of the driver's license.



A report of an important five-year research, conducted for the Committee by Michigan State College, was published in 1953. The aim was to answer questions of some authorities, medical and legal, as to reliability and comparability of various breath-test methods. Research showed that all presently recognized methods, properly used, are reliable. These findings, which were widely reported from a national news release, will help obtain official, professional and public acceptance.

The chemical test program, supported by special grant, is supervised by a committee of public officials, medical and other experts, and highway user representatives. Statistical, promotional, and "clearing house" activity is by Council staff, the training of technicians by Northwestern University Traffic Institute.

COOPERATION OF INDUSTRIES

Traffic accidents resulted in 15,500 deaths and 550,000 injuries to non-agricultural workers while away from work in 1953. The indirect toll in interrupted operations, retraining, etc., as well as close relationship between safety attitudes on and off the job, have long been recognized by a few industrial leaders. Recognition and activity in this area have been growing rapidly. Off-job programs in industry include:

- Extensive house organ publicity, including use of cartoon mats supplied by the Council.
- Family safety meetings and on-the-job meetings using such as aids as the four Council films on off-job safety.
- Distributing of 1,050,000 copies of 8 Council booklets on vacation and traffic hazards.
- 575,500 Council safety calendars which feature traffic safety on back of pages, including the limerick contest which brings in 20,000 entries per month from members' employees or their families.

MOTOR TRANSPORTATION

The Motor Transportation program is concerned with commercial vehicle fleets—with the owners and the drivers of the trucks, buses, taxicabs and salesmen's cars which form so large a part of today's traffic. As in other areas, the Council works closely with other agencies similarly concerned, including the trade and other associations whose members operate such fleets. The Commercial Vehicle and Transit Sections are included in the Traffic and Transportation Conference and are staffed by the Motor Transportation Division.

ANNUAL FLEET SAFETY CONTEST

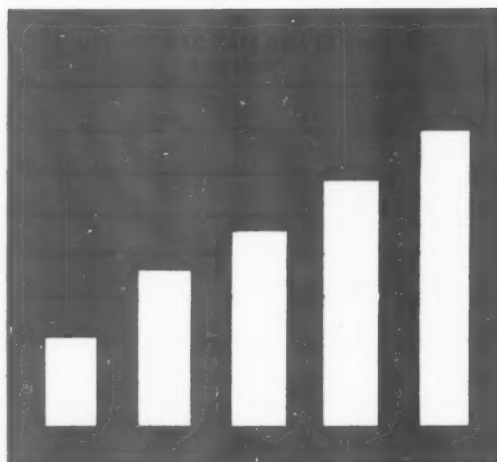
This Contest, in which the various kinds of vehicle fleets are grouped in 30 Divisions, assembles on a uniform basis the accident experience of over 1,500 fleets and 250,000 vehicles. Its annual awards are a powerful incentive to fleet owners and supervisors. Four of the Divisions are now sponsored by the Milk Industry Foundation, the Automobile Transporters Association and in 1954, the American Gas Association, and the International Association of Chiefs of Police. The Police Division has entries from 49 city and 25 state police organizations. Other cooperative sponsorships are in prospect.

MATERIALS

The Council's services for the use of fleet safety supervisors cover a wide range of administrative, technical and promotional publications on driver selection and training, accident records and investigation, garage and terminal safety; training films and booklets including a new booklet "Passenger Safety"; safetygraphs, posters, driver magazines and letters, dash stickers, safety instruction cards, new "reaction timer" cards and the like. Monthly "packages" of specially selected current materials are now available for truck, transit and sales fleets.

SAFETY AWARDS

These awards, to drivers who have completed one or more years without a preventable accident, major or minor, were earned last year by over 70,000 drivers of trucks, buses, taxicabs, school buses and salesmen's cars and are now the proud possession of over 750,000 such drivers. Recognized as "the highest award for professional safe driving performance", this Award has proved itself management's sharpest tool of accident prevention. A new addition is the Expert Driver Award, a small plaque for 5, 10 and 15 year Award Winners.



MARCUS A. DOW AWARD

The Dow Award is made each year to the outstanding professional fleet safety engineer. The Board of Judges selects the winner on the basis of his accomplishment in his own fleet plus his contributions to motor transportation safety. The Award has focused attention on the need for improved techniques and higher standards in fleet safety supervision.

PUBLIC INFORMATION activities which reach both the commercial driver and his fellow-users of highways are reported elsewhere in this section. Special work with almost 100 motor transportation journals included: Award news, distribution of accident rate pamphlets and news releases and samples of new motor transportation services.

An outstanding example of magazine support for safety was that of the 1953 Public Interest Award winner—Commercial Car Journal—19 articles and 12 editorials, including reprint pages for bulletin boards.

MEMBERSHIPS of motor transportation companies total 688, of which 636 use the Safe Driver Award Service. In addition, 237 industrial and other organizations use Awards. An aggregate of 120,000 professional drivers are covered.

The growth record of the Safe Driver Award service has continued outstanding—the first 8 months showed 115 added fleets. Despite cancellations, the net growth is the biggest of any field served by the Council.



PRESS, RADIO, TV



NEWSPAPER and magazine work of the Council, in addition to that noted under specific traffic headings, included:

- ▶ "Highway Zoo" series of 12 cartoon mats to 8,500 newspapers, magazines and company house organs.
- ▶ Feature articles on vehicle checks, summer driving, child safety and other subjects.
- ▶ Exclusive articles for such magazines as: NATIONAL PARENT-TEACHER (reprinted by READER'S DIGEST) and COUNTRY GENTLEMAN (specialized driving techniques for specific situations).
- ▶ Numerous magazine articles, as well as newspaper and radio material, are submitted by outside editors and writers for staff assistance and verification.

RADIO-TV projects of the Council included:

- ▶ Six two-minute "Highway Zoo" films to 172 stations for 1,000 uses.
- ▶ Ten "It's Suicide" trailers to 155 TV Stations for over 1,500 uses.
- ▶ CBS one-hour documentary, "Dead Stop", to 830 stations.
- ▶ "Stars for Safety" recordings to 240 additional stations in 1954; two-year total, 1,355.
- ▶ Ten "Dearborn Speaks" recordings to 1,165 stations.
- ▶ LaRosa-Bleyer teen-age recordings to 1,100 stations.
- ▶ "No Respector of Persons" script to 75 stations.
- ▶ "Rhythm and Reason" disk jockey scripts to 478 stations.
- ▶ Twelve radiograms bi-weekly to 2,200 stations.

HOLIDAY traffic toll prediction and educational news releases were widely used over Memorial Day, July 4th, Labor Day, Christmas and New Year's. Special features were:

- ▶ July 4th—letters to 130 national organizations and all newspapers, three new releases and a pattern editorial.
- ▶ Christmas—the same, with one additional release, plus the Cartoon Contest which 156 of the nation's 200 cartoonists entered.
- ▶ St. Valentine's Day release of comic verse, widely used!

THE "STOP ACCIDENTS" CAMPAIGN conducted by The Advertising Council for the National Safety Council ranks at the top of the 18 public service campaigns of The Advertising Council. Highlights were:

- ▶ Home impressions, resulting from television-radio allocations carried by sponsored programs, led all 18 campaigns in 1953, and in 1954 had the greatest gain over 1953.
- ▶ Five newspaper kits. Over 46,000 mats ordered by 4,500 newspapers.
- ▶ Two full-page and four smaller ads used extensively in national magazines.

The three themes of the past year were:

- ▶ Fall—"Safety Pays, Gambling Doesn't".
- ▶ Winter—"The Highway Zoo", animals with human traffic faults.
- ▶ Spring—"Alec, the Cat", who can take chances with his nine lives—You can't!

The National Safety Council pays only for cost of materials used in the campaign. Talent, administration, and advertising time and space are contributed.

PUBLIC INTEREST AWARDS of the Council stimulate and recognize outstanding support of traffic safety by public information media. From the records of 213 winners out of 339 entries the following examples were selected to show the size and scope of support:

- ▶ Newspapers—Omaha World-Herald—500 stories, 200 features, 30 editorials, 15 cartoons, 450 photos.
- ▶ Radio—Mutual Broadcasting System—3 special programs, 660,000 spots by system stations.
- ▶ TV—Station WKRC, Cincinnati—162 programs, 822 spots, 1,560 mentions.
- ▶ Magazines—PARADE magazine—8 major articles.
- ▶ Advertisers—Esso Standard Oil Company—1 ad in 5 magazines, 4 ads in many newspapers, 3 posters, and 12,150 radio-TV mentions.

Overall data on Council Public Information work, will be found on pages 32 and 33.



WOMEN'S ACTIVITIES

So that organized women's groups may realize their potential strength and support for traffic safety, the Council's Women's Division assists and stimulates group leaders, national, state and local. Two specific activities are:

- ▶ 9000 copies monthly of "Targets for Traffic Safety" to leaders in PTA, women's clubs, professional groups, auxiliaries, and other urban and rural groups.
- ▶ The Carol Lane Awards, a grant project for which the Council is administrator, stimulates and recognizes outstanding women's achievements in traffic safety.

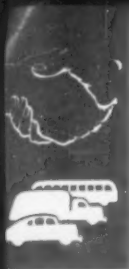
A fuller report of work with women will be found on page 34.

COOPERATION OF FARM GROUPS

Although farming is one of the most hazardous occupations, 60% more farm residents are killed in traffic than at work. Thus traffic safety is an important part of the Council's farm program, which is more fully reported in another section. Two projects were:

- ▶ Promotion of the new county survey of rural traffic accident problems.
- ▶ The "Lite-Farm Equipment" campaign sponsored by State Farm Safety Committees through local 4-H Clubs and Future Farmers of America Chapters. The purpose is, through use of reflective material, to reduce night traffic accidents involving unlighted farm equipment, of which some 37 million pieces are in use.





SCHOOLS AND COLLEGES

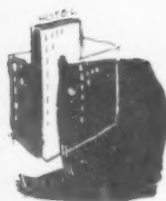
Traffic safety is integrated in the school and college program described more fully in another section. Among the important traffic activities are:

- ▶ SAFETY EDUCATION magazine, lesson units and posters for elementary and secondary schools, Safety Education Data Sheets and other technical releases, and the Film Directory.
- ▶ Annual Congress sessions, a unique forum in which school people from all parts of the country exchange experience and ideas with one another and with other traffic workers.
- ▶ The Driver Education Section, a clearing house on developments for its 684 member teachers and supervisors.
- ▶ The School Transportation Committee dealing with problems of safety in the daily transportation of nearly 8 million school children and youth.



RESEARCH

Council staff have served on many committees dealing with traffic safety research and have given advice and assistance on research projects. The Council's own research activities include Winter Driving Hazards and Chemical Tests; the analyses of nation-wide data obtained through the Inventory; and study of trends and circumstances carried on continuously by the Statistics Division and published in ACCIDENT FACTS and elsewhere.



NATIONAL SAFETY CONGRESS activities in 1953 may be briefly reported as: 18 meetings of general and specialized groups with 72 speakers and participants, attendance over 3,000, 26 news abstracts of speeches and 4 photo feature stories in the press, 60 broadcasts. Transactions of the meetings, 132 pages, had a distribution of 2,900. These were in addition to some school and farm sessions with traffic emphasis.



TRAFFIC MEMBERSHIPS now total 964, a 6% increase from 1953. Seventy-three state traffic agencies and organizations, 514 city departments, 107 other traffic organizations and 270 individual members are now regularly receiving traffic services.

PUBLICATIONS distribution in 1953 was lower than in 1952, principally reflecting peak use of May vehicle check materials by automobile dealers in the earlier year. Nevertheless, material distributed had an aggregate sales value of \$115,000. For the first seven months of 1954, publication sales rose almost \$23,000 from the comparable period in 1953, largely because of new Operation Safety projects.

PUBLIC SAFETY magazine paid circulation is 9,081, a two per cent gain over 1953. Total circulation, including complimentary, is 11,748 and includes all cities over 10,000 population, plus departments with important traffic responsibilities in all states.

Two 16-page full-color cartoon books were published in cooperation with the Department of the Army. Army circulation was, in both instances, over a million copies.

STAFF AND BUDGET

Thirty staff members worked in units identified specifically as traffic—the Traffic Inventory and Grade Crossing programs, and the Traffic and Motor Transportation Divisions. Time spent in behalf of traffic safety by other units represented the equivalent of another 79 people—field representatives, statisticians, writers and editors; administrative staff; and associated stenographic, clerical, and stock and shipping personnel.

Money to finance the Council's Traffic safety work in 1953 came from:

Traffic dues, sales, advertising, etc.....	\$ 551,000
Grants for traffic safety.....	153,000
General contributive funds allocated by the Trustees.....	261,000
<hr/>	
Traffic portion of total income.....	\$ 965,000
Non-traffic dues and sales income allocated by the Directors.....	246,000

Traffic portion of total expense.....\$1,211,000

For discussion of sources of revenue and kinds of expense represented, see pages 4 and 5.

NEEDS

While all of the many items comprising the Council's Traffic and Transportation program are of definite value, and many of them would be still more effective if further developed and expanded, the following needs seem particularly urgent.

- ▶ More and better service—organizational, technical and fund-raising—to existing and prospective state and community organizations.
- ▶ Technical review of Inventory standards and procedures; training of cooperating state staffs.
- ▶ Intensive study of accident causes.
- ▶ Development of PUBLIC SAFETY magazine, and expansion of its circulation, to meet the demand for better communication of information, experience and ideas to and among traffic people throughout the country.
- ▶ A definite pre-service and in-service training program for National Safety Council and Chapter staffs, perhaps as a joint enterprise with other national agencies.



Vice President
for Schools and Colleges
DR. LOWELL B. FISHER
University of Illinois

School & College Conference 1953 - 1954

Chairman: HERBERT J. STACK, Director, Center for Safety Education, New York University
Vice-Chairman for Elementary Education: MRS. LILLIAN GILLILAND, Oklahoma City Public Schools
Vice-Chairman for Secondary Education: C. BENTON MANLEY, Director of Safety Education, Springfield, Mo.

Vice-Chairman for Higher Education: JOHN W. HILL, Director, Workmen's Compensation Insurance, Texas A & M College System

Vice-Chairman for Special Areas: LONNIE GILLILAND, Director, Safety Education, Oklahoma City Public Schools

MEMBERS AT LARGE

John E. Corbally
Ray O. Duncan
Lillian Gilliland
Gordon C. Graham
James J. Griffin
John W. Hill
Herold C. Hunt
C. Benton Manley
James W. Mann
Norma F. Wulff

ORGANIZATIONS AND AGENCIES INTERESTED IN EDUCATION AND SAFETY

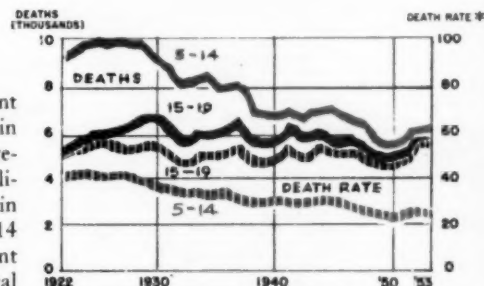
Accident Prevention Department of Association of Casualty and Surety Companies
PRICE E. CLARK
American Academy of Pediatrics
DR. EDWARD PRESS
American Association for Health, Physical Education and Recreation
A. H. PRITZLAFF
CLIFFORD LEE BROWNELL
American Automobile Association
HELEN KNADEL
American Council on Education
FRANK C. ABBOTT
ARTHUR S. ADAMS
American Home Economics Association
MARY HANDLIN
American Industrial Arts Association
MERRILL HAMURG
DEWITT HUNT
American Medical Association
W. W. BAUER, M.D.
FRED V. HEIN
American National Red Cross
EARL H. BREON
EDWARD A. RICHARDS
American Vocational Association
M. D. MOBLEY
ROY FAIRBROTHER
Association for Supervision and Curriculum Development
GILBERT S. WILLEY
MRS. GLADYS POTTER
Association of American Railroads
H. S. DEWHURST

(Continued on page 22)

SCHOOLS AND COLLEGES

"From the long-term point of view, no part of the safety movement is more important than the work with our children and youth. For more than 25 years the National Safety Council has maintained a position of respect and leadership in the school field. To do the job that is required today, two needs are paramount — more effective coordination and adequate financial support."

—Lowell B. Fisher



* Deaths per 100,000 population in each age group

Accidents were responsible for 43 per cent of all deaths in the five to 19 age group in 1951. Ten years earlier accidents were responsible for only 31 per cent of the fatalities in this age group. During the decade in which fatalities from accidents decreased 14 per cent there was almost a 50 per cent decrease in fatalities from non-accidental causes. Despite some progress in accident control, the relative importance of accidents in the life or death of children and youth has steadily increased.

SCHOOL AND COLLEGE CONFERENCE

A survey just completed by the Conference to show the nature, extent and adequacy of safety education materials and services provided by national organizations will be presented at this year's Congress. Participating in the survey were 86 supervisors of safety education and 69 teacher educators in 41 states. The report will serve as a guide to national organizations for program planning. Need for better coordination of service programs is indicated.

SAFETY EDUCATION SUPERVISORS SECTION

Members number 465 from city and state education departments in 47 states and the District of Columbia. Accomplishments for the year include: a Safety Charter for Children and Youth, a statement of the basic principles of safety education, a revision of the Speaker's List.

DRIVER EDUCATION SECTION

Current membership is 684 teachers and supervisors of driver education. Continued efforts are made to encourage the formation of state Driver Education Associations. During the Congress, representatives of state associations will meet to review current activities and develop a working relationship with the Section.

Two Congress Sessions, will implement and encourage action on the Policies and Recommendations of the 2nd National Driver Education Conference conducted by the National Commission on Safety Education.





HIGHER EDUCATION

(Continued from page 21)

Association of School Business Officials
DON GAVIT
Automotive Safety Foundation
STEPHEN JAMES
Center for Safety Education
HERBERT J. STACK
National Board of Fire Underwriters
GEORGE G. TRAVER
National Catholic Education Association
MONSIGNOR FREDERICK G. HOCHWALT
URBAN FLEECE
National Congress of Parents and Teachers
MRS. FRED W. KNIGHT
National Council of Chief State School Officers
HAROLD K. JACK
NORMAN E. BORGERSON
National Council on Schoolhouse Construction
THOMAS J. HIGGINS
National Federation of State High School Athletic Associations
FRANK W. DOUMA
H. V. PORTER
National Fire Protection Association
PERCY BUGBEE
JOHN J. AHERN
National School Boards Association
EDWARD M. TUTTLE
CLIFTON B. SMITH
North Central Association of Colleges and Secondary Schools
LOWELL B. FISHER
M. R. OWENS
U. S. Office of Education
N. E. VILES

SECTIONS

Driver Education Section
LESLIE SILVERNALE
FORREST GAINES
Safety Education Supervisors Section
LONNIE GILLILAND
ZENAS CLARK

COMMITTEES

National School Safety Honor Roll Committee
FORREST E. LONG
Standard Student Accident Reporting Committee
THELMA REED
School Transportation Committee
O. P. RICHARDSON
School Plant Planning Committee
THOMAS J. HIGGINS
School Shop Safety Services Committee
C. E. SUMMERVILLE
RAY STOMBAUGH

LIAISON REPRESENTATIVES

FROM OTHER CONFERENCES
Farm Conference
RANDALL C. SWANSON
Home Conference
WALTER CUTLER
Industrial Conference
CHARLES A. MILLER
Local Safety Organizations Conference
HAROLD F. LILLIE
Public Information Conference
GEORGE JENNINGS
Traffic Conference
M. R. DARLINGTON, JR.

Teacher preparation for safety was offered in 340 colleges during the past year, an increase of more than 25 per cent in one year. A news story was sent to educational journals.

Accidents to college students were studied with the cooperation of the American College Health Association and the Council's Statistics and Research Division. Twelve colleges reported 7,000 accidents.

In cooperation with the University of Illinois and the Council's Industrial Department, the Campus Safety Committee successfully conducted the first national conference on Campus Safety. Transactions have been made available.

PUBLICATIONS

Subscriptions to SAFETY EDUCATION Magazine now total 8,116, an increase of 7 per cent over last year. During the year an unusually large number of articles or features were reprinted in other publications. More than 780,000 lesson units and almost 310,000 posters were distributed during 1953-54 school year. A special series of specific subject packets was developed this year. Sales during first six months totalled 596.

Two special projects made possible the following distribution—

- 523,000 Safety Education Data Sheets to Homemaking teachers.
- 300,000 Safety Education Data Sheets and 125,000 posters dealing with the dangers of abandoned refrigerators.

Publications income in 1953 was \$55,000, a \$4,000 increase from 1952. In the first seven months of 1954, publications income was up an additional \$13,000, largely because of sponsored distribution of data sheets and posters.

ACCIDENT REPORTING

School systems enrolling 1,944,000 use the Council to pool data on injuries to pupils while under jurisdiction of the school. Through SAFETY EDUCATION, ACCIDENT FACTS and other media data on the extent and character of the school-age accident problem are disseminated to educators and others. Introduction of an improved Student Accident Summary will increase the value of pupil injury data.

HONOR ROLL

During the 1953-54 school year, 603 schools were awarded the Council's National School Safety Honor Roll certificate—almost doubling the number in the previous year. This increase was the result of stimulation in two states by the State Congress of Parents and Teachers and a state Safety Commission as well as increased participation by Council Chapters. The list of qualifying schools was published nationally.

CONSULTATION

During the 1953-54 school year, 19,600 requests for safety information were answered. Staff members spent 173 days in 35 cities of 22 states, assisting local, state and national safety education programs as illustrated by:

- Planning and conducting the first conference on elementary school safety in Mississippi.

- Planning and participating in the meeting of the Pennsylvania Association for Safety Education
- Serving on the planning committee for the Fourth National Conference on Health in Colleges

NATIONAL SAFETY CONGRESS

Total attendance at School and College Sessions of the 41st Congress was 2,406, highest to date. In addition to 37 sessions with 132 speakers and discussion leaders, there were 50 committee meetings. Forty-three states and 3 foreign countries were represented. Six speech abstracts were distributed to the press nationwide and one special news feature was prepared.

Sixty-eight sessions, 140 persons with program responsibilities, and 42 committee meetings for an aggregate of more than 300 members are scheduled this year. Experimental consultation sessions will be a highlight.

SCHOOL TRANSPORTATION

Approximately 8 million children are transported in nearly 130,000 school buses. Major staff contributions were a Safety Education Data Sheet on school bus passenger safety instruction, participation in the 1954 National Conference on School Transportation and in a one-week institute for 850 New Mexico drivers, procurement and publicizing of the 1953 school bus accident records and, in response to requests from state officials, initial steps in the preparation of a model state program. Through the Annual Inventory of Traffic Safety Activities state data were collected on vehicle standards, inspection and maintenance, driver selection, training, supervision and transit practices, and passenger instruction.

SCHOOL PLANT

The nation is engaged in a multi-billion dollar program of school construction and rehabilitation. The School Plant Planning Committee has prepared a policy statement, "Responsibility for the Provision of a Safe School Environment", and is presenting its statement for approval and support of the National Council on Schoolhouse Construction and the Association of School Business Officials.

LOCAL CHAPTERS

State and local chapters continued to make a multitude of contributions to school child safety. Examples were: supplying materials, notably SAFETY EDUCATION magazine, lesson units and posters; promotion of the Honor Roll; advisory and consultation service by professional staff; assistance in teen-age conferences on driver education; in-service educational facilities for teachers through sessions of

local, state and regional safety conferences; inspection of school plants by engineers associated with chapters in a staff or volunteer capacity.

RADIO, TV AND PRESS

For the past six years the School and College Division has assisted the Roy Rogers Annual National School Safety Award program which has grown to a total of some 9,000 participating schools and includes awards for state, as well as national, winners and certificates of recognition for all participating schools.

Outstanding cooperation of radio-TV talent made possible the distribution of the following child safety material:

- 3 films featuring Superman to 186 stations.
- 3 Wild Bill Hickok safety announcements.
- Captain Video announcement to 100 stations.
- 100 "Mr. Wizard" announcements to 100 stations.
- Wild Bill Hickok-Don McNeill story recordings to 1,135 stations.
- Julius LaRosa-Archie Bleyer recordings on teen-age safety to 1,100 stations.
- 26 Safety Story Lady scripts to 448 stations.
- 120 child safety hints to a list of 3,350, including 2,600 radio stations.

The Public Information Department gives frequent assistance to writers and editors on teen-age driving, driver education, playground surfacing and school bus safety, and prepared an exclusive story for ROUGH NOTES magazine on driver education.

STAFF AND

Seven staff members worked in the School and College Division. Time spent in behalf of School safety by staff in other units represented the equivalent of another 12 people.

Money to finance the Council's School safety work in 1953 came from the following sources:

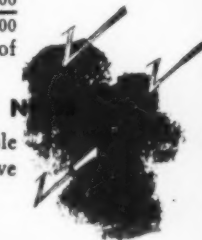
• School dues and sales, advertising, etc.	\$ 65,000
• General contributive funds allocated by the Trustees	64,000
• School Portion of Total Income	\$129,000
• Non-School dues and sales income allocated by the Directors	64,000
• School Portion of Total Expense	\$193,000

For discussion of sources of revenue and kinds of expense represented, see pages 4 and 5.

One urgent need is to find means of making available to school people safety education materials to serve the instruction program.

Other important needs are:

- Reactivation of the Elementary School Section
- Formation of Sections in higher education, physical education, industrial education and home economics.





HOME SAFETY

"It is a startling fact, little known, that in metropolitan areas (where most safety organizations function) half the fatal accidents occur at home. It is high time that safety-minded people recognize this, in order that adequate, effective programs can be developed and financed on national and local levels."

—W. A. Stewart



Vice-President for Homes

W. A. STEWART

President, American Optical Co.

Home deaths in 1953 numbered 29,000, or a rate of 18.3 per 100,000 population. Non-fatal injuries totaled 4,350,000. The death rate dropped from 20.8 in 1949 to 18.3 in 1950 and has remained fairly constant since that time.



WHAT THE COUNCIL IS DOING

THE HOME SAFETY CONFERENCE is the meeting ground for national groups. The Home Safety Merit Award program, now in its 5th year, is the most successful staff activity under Conference sponsorship. The Merit Award reports are a most valuable source of information as to effective programs and procedures. This year 51 reports were received and 40 awards given, the distribution being as follows: Health agencies 12 awards; safety councils 5; industrial off-the-job 14; business group public service 5; and community groups 4.

THE HOME DIVISION with a small staff and budget serves as a clearing house calling attention to current needs and passing on such information as details of award-winning activities to interested national and community groups through periodicals like the *Home Safety Review* (monthly circulation 2,290) and the *Home Safety Newsletter* (bi-monthly). The Division assists in stimulating and accelerating programs through field visits (25 states and 17 cities during 12 months); through correspondence; through participation in conferences (regional or state safety conferences, public health associations, home builders); publication and distribution of fact sheets, program-planning materials and educational leaflets.

Home Safety Conference 1953 - 1954

Chairman: GEORGE M. WHEATLEY, M.D., Third Vice-President, Health and Welfare, Metropolitan Life Insurance Company
Vice-Chairman: Division of Community Service Groups, E. M. GEARHART, JR., Director-Secretary, Kalamazoo Safety Council
Vice-Chairman: Housing and Equipment Division, LEONARD HAEGER, Director, Technical Service and Research Dept., National Association of Home Builders
Vice-Chairman: Health and Medical Division, EDWARD PRESS, M.D., Associate Director, University of Illinois Services for Crippled Children
MISS LURA JIM ALKIRE, Manager, Consumers Institute, General Electric Co.
DALE K. AUUCK, Fire Prevention Engineer, Federation of Mutual Fire Insurance Companies

W. W. BAUER, M.D., Director, Bureau of Health Education, American Medical Association
W. W. BOLTON, M.D., Associate Director, Bureau of Health Education, American Medical Association
MISS RUTH A. BOTTOMLY, Director of Office, National Congress of Parents and Teachers
A. CARL BREDAHL, Westinghouse Electric Corp.
ALFRED M. CANTWELL, National Director Safety Services, American National Red Cross
THEODORE I. COE, Technical Secretary, American Institute of Architects
MYRON CUSACK, Managing Director, U. S. Junior Chamber of Commerce
DR. WALTER CUTTER, Assistant Director, Division of General Education, Center for Safety Education, New York University

MISS ESSIE L. ELLIOTT, Vice-President for Home Safety, Greater Los Angeles Chapter, National Safety Council
HOWARD ENNES, Equitable Life Assurance Society of U. S.
MISS RUTH FISHER, Director, Department of Public Health Nursing, National League for Nursing, Inc.
MISS KAREN FLADOES, Director, Consumers Service, Nash-Kalvinator Corp.
MRS. ESTHER HANDWERK, Supervisor, Division of Home Economics, Chicago Board of Education
DONALD HARTING, M.D., Regional Medical Director, Children's Bureau
DONALD M. HIGGINS, Director, Health and Safety Service, Boy Scouts of America
DR. IRMAGENE N. HOLLOWAY, Educational Consultant, Greater Cincinnati Safety Council
FREDERICK S. KENT, Chief, Home Accident Prevention Unit, Division of Sanitation, Public Health Service, Department of Health, Education and Welfare
MRS. FRED KNIGHT, Chairman, Committee on Safety, National Congress of Parents and Teachers
JAMES M. LANGE, Executive Editor, Practical Builder
JAMES T. LENDRUM, Small Homes Council, University of Illinois
FRED LONG, M.D., Commissioner, Department of Health, Peoria, Illinois
NICHOLAS L. MACZKOV, Supervisor, Technical Services, American Standard Corporation
DONALD E. MUMFORD, Superintendent of Safety, New York Central System
MISS RENE L. MUNTZ, Home Service Director, Rochester Gas and Electric Company
MISS MADELINE PERSHING, Nurse Officer, Home Accident Prevention Unit, Division of Sanitation, Public Health Service, Department of Health, Education, and Welfare
MISS EDITH RAMSEY, Home Equipment Editor, The American Home
HARRY MARCHMONT ROBINSON, M.D., American Academy of General Practice
TYLER S. ROGERS, Technical Consultant, Owens-Corning Fiberglas Corp.
DR. A. B. ROSENFELD, Chief, Bureau of Maternal and Child Health, Minnesota Department of Health
C. M. ROWLEY, Chief Engineer, American Manufacturers Mutual Insurance Co.
C. GEORGE SEGELER, Engineer of Utilization, American Gas Association
TOM SHERIDAN, Staff Vice-President, U. S. Savings and Loan League
MISS JAYNE SHOYER, Associate Director, National Society for Crippled Children and Adults, Inc.
MISS RUTH TUCKEY, Director of Nurses, Community Nursing Service of Oak Park and River Forest
MISS MARY N. WEEKS, Health and Safety Advisor, Girl Scouts of the U.S.A.
MRS. GEORGE WELLES, JR., St. Louis County Minnesota, Safety Council
MISS AVIS WOOLRICH, Housing Specialist, Bureau of Human Nutrition and Home Economics, Agricultural Research Center
MRS. NORMA F. WULFF, Vice-President for Home Safety and Women's Activities, Greater Cleveland Safety Council

► **Public Information highlights were:**

- 120 home safety hints to 727 women radio directors.
- 24 safetygrams to 3,249 stations and others.
- 10 Rhythm and Reason disk jockey scripts to 478 stations.
- "A National Program for Prevention of Home Accidents" sent to 150 magazine editors.
- Congress publicity included 6 press releases and 6 broadcasts.
- Developed features for news syndicates, including: Vacations, Home Hazard Photos, Spring Home Repairs, and 12 stories for an advertisers' section.
- Public Interest Award to Better Homes and Gardens for 11 articles on safety.
- Burns and Allen TV network program.
- Research and checks for numerous writers.

► **Statistics work included:**

- 5 pages of Accident Facts, with new material on discarded refrigerator accidents.
- Current monthly death estimates.
- Consultation on local surveys.

► **School and College activities, such as:**

- Discarded refrigerator campaign.
- Numerous data sheets on home hazards.

► **Women's Activities included:**

- Monthly distribution of "Targets," a program sheet, to 7,000 women leaders.
- Consultation and assistance to hundreds of groups.

► **Industrial assistance is exemplified by:**

- Publication of off-job leaflets and guides, widely used in industry, as is the Council's Calendar.
- Technical information, particularly in the chemical and electrical fields.

SHARP-SHOOTING

A host of activities by agencies of every sort make up the total national home safety effort. In some of the programs the Council plays a part. Examples of programs to meet specific needs, some of them Merit Award winners:

► **CHICAGO POISON CONTROL CENTER**—a 24-hour a day treatment and information center established by Illinois physicians with the cooperation of medical schools, hospitals, and the Council.

► **ABANDONED REFRIGERATORS**—Senate hearings gave impetus to voluntary efforts to control problem locally. The Council distributed thousands of leaflets and posters and publicized model ordinance.

► **CARBON MONOXIDE**—Public health investigations in Denver, in Texas, and elsewhere revealed many instances of faulty installation of gas-fired equipment. Nation-wide program by industry association and a hotel-accrediting agency inaugurated to inspect accredited motels. At least 2,600 faulty installations corrected.

► **CHILD ACCIDENTS**—Survey of what mothers know about child protection in New Jersey, with cooperation from the Council. Vigorous campaign to stimulate health departments in eleven western states by an insurance company. Considerable progress in Z66 Committee of American Standards Association, aimed at certain standards for child safety. County-wide survey of child accidents at home by a medical society in Michigan. City-wide education and publicity campaign by Long Beach physicians. Distribution of a first-aid and child accident prevention booklet by Phoenix physicians.

► **INJURIES FROM KEROSENE STOVES**—Home Division assisted in state-wide investigation in Arkansas. Problems to this field are being studied by National Fire Protection Association and by New York State Federation of Community Safety Organizations.

► **ENVIRONMENTAL HAZARDS, "BUILT-IN SAFETY"**—Preliminary standards for "built-in" safety distributed by association of home builders. Local builders and newspaper cooperated in Cleveland to sponsor model "safe home." Massachusetts state law enacted permitting condemnation of dwellings for environmental hazards.

► **OFF-THE-JOB**—Publication of a new kit of materials and program suggestions by the Council. Effective programs reported by companies in many industries, including chemical, communications, aircraft manufacturing, railways, petroleum, pulp and paper, public utilities, steel, and automotive. Industrial interest and cooperation evidenced by a session at 1954 Congress jointly sponsored by ASSE and three Council groups.

► **HEALTH DEPARTMENT PROGRAMS**—The Home Division publishes a *Newsletter* beamed at hundreds of health departments. Eight state and three local health departments operate home safety programs with full-time staff, some concentrating on surveys and studies, others on preparation of materials, others on developing community relationships.

STAFF AND BUDGET

Five staff members worked in the Home Division. Time spent in behalf of Home safety by staff members in other units represented the equivalent of another 7 people.

Money to finance the Council's Home safety work in 1953 came from the following sources:

Home publication sales, Congress, etc.	\$19,000
General contributive funds allocated by the	
Trustees	43,000*
Home Portion of Total Income	\$62,000
Non-Home dues and sales income	
allocated by the Directors	42,000
Home Portion of Total Expense	\$104,000

* A grant of \$10,000 specifically for home safety was received for use in 1954.

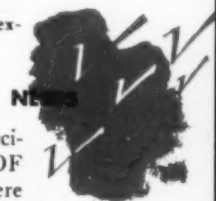
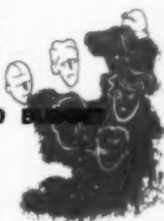
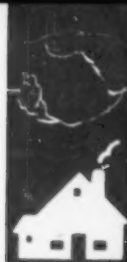
For discussion of sources of revenue and kinds of expense represented, see pages 4 and 5.

THE PRE-SCHOOL CHILD—Home accidents are the **NUMBER-ONE CAUSE OF DEATHS** in the age-group one to four years. There are 18 million children in the pre-school group, the time and place to begin effective, life-long safety teaching.

OLD AGE—The rapidly increasing proportion of over-65's in our population is attracting nation-wide interest. This group and young children are the primary victims of home accidents.

HOME FIRES—Dwelling fires are increasing more rapidly than those in other categories.

EQUIPMENT AND APPLIANCES—A scattered few manufacturers mention safety in their promotion. There is need for a concerted program with industry-wide participation.



FARM SAFETY

"Progress in farm safety is most encouraging. More than half the states have active safety committees, and more than a fourth employ farm safety specialists. Farm equipment manufacturers' safety committees are achieving excellent results. The press and radio-TV give splendid support. 4-H and FFA groups have national safety programs, and many other groups are providing aid.

"Nevertheless, agriculture still has a long way to go. If safety education had been applied as effectively on American farms as in industry last year, the lives of nearly 1,700 farmers would have been saved. Farm safety is difficult to organize, for every farmer must really be his own safety engineer. That is why it is doubly important for the leaders of agriculture—all agriculture—to join hands in this great safety endeavor."

—G. L. Noble

Accidents killed 14,500 farm residents and injured 1,250,000 in 1953. Motor vehicle accidents accounted for 6,200 of the deaths. Work accidents, 3,800 deaths.

NATIONAL FARM SAFETY WEEK

The 11th annual National Farm Safety Week, jointly sponsored by the Council and the U.S. Department of Agriculture, was observed July 25-31. Farm residents were urged to "Farm To Live and Live To Farm" by practicing safety at work, in the home, in traffic and at play.

In 1944, the first year, just a few organizations cooperated. This year the campaign was supported by almost every organization directly interested in farm life and welfare. Highlights of the Week were:

- ▶ 30 network radio broadcasts, 4 network television broadcasts; 849 local radio and 48 local TV mentions; 597 special radio transcriptions featuring prominent speakers and George Montgomery and Ronald Reagan; 125 sets of three TV slides.
- ▶ 647 newspapers and magazines requested mats. Many industrial organizations featured farm safety in house publications and in advertising.
- ▶ Ten thousand program kits were distributed to County Extension Agents and others with the help of the Federal Extension Service, state colleges of agriculture, farm equipment dealers, vocational agriculture schools, commercial organizations and others.

By all measures—leadership, cooperation, materials distributed, publicity, and acceptance by rural people—this year's National Farm Safety Week again broke all previous records.

Farm Conference 1953 — 1954

Chairman: RANDALL C. SWANSON,
Farm Safety Specialist, University of
Wisconsin
Vice-Chairman: MARTIN RONNING,
Chief Engineer, Power Machinery
Division, Minneapolis-Moline Co.

Secretary: MAYNARD H. COE, Di-
rector, Farm Division, National
Safety Council
LEE ADKINS, Staff Associate, Rural
Division, Automotive Safety Founda-
tion



Vice President for Farms

G. L. NOBLE

Director, National Committee
on Boys' & Girls' Club Work

MRS. ALMER ARMSTRONG, Home
Department, Indiana Farm Bureau
Cooperative Assn.
HAROLD BEATY, Manager, Rural Serv-
ices, Edison Electric Institute
THEO. BROWN, Deere & Company
JOHN DANEKE, Department of Public
Relations, General Motors Corp.
T. A. ERICKSON, Consultant, Rural
Services, General Mills, Inc.
KIRK FOX, Editor, Successful Farming
RAYMOND GILKESON, Editor, Kansas
Farmer
HOWARD GRAMLICH, Director, Agri-
cultural & Forestry Development,
Chicago & North Western Rwy. Co.
RUSSELL HESTON, Assistant Secretary,
National Association of Mutual In-
surance Companies
C. N. HINKLE, Agricultural Engineer,
Sales Technical Service Department,
Standard Oil Co. (Ind.)
MISS AMY KELLY, State Extension
Agent, University of Missouri
MRS. DORSEY KIRK, The National
Grange
EDWARD R. KLAMM, Manager, Acci-
dent Prevention Division, Allstate
Insurance Co.
ALLAN KLINE, President, American
Farm Bureau Federation
E. W. LEHMANN, Head of Depart-
ment, Agricultural Engineering, Uni-
versity of Illinois
S. P. LYLE, Assistant to Chief, Division
of Agricultural Programs, U. S. De-
partment of Agriculture
E. C. MARTIN, State Agricultural
Leader, Texas A. & M. College
EARL MERRILL, Director, Agricultural
Extension Bureau, Republic Steel
Corp.
FLOYD MORRIS, Buffalo, Ill.
PAUL MULLIKEN, Executive Director,
National Retail Farm Equipment
Assn.
HERSCHEL NEWSOM, Master, The
National Grange
HARRISON NOLT, Chairman, Penn-
sylvania Rural Safety Committee
V. S. PETERSON, Nitrogen Products
Sales, E. I. du Pont de Nemours &
Co., Inc.
HARRY PONTIOUS, Director of Safe-
ty, Farm Bureau Mutual Automobile
Insurance Companies
HARRY L. POWELL, Manager, Manu-
facturer's Sales, Goodyear Tire &
Rubber Co.
A. J. SCHWATES, Head of Dept.
Agricultural Engineer, University
Farm
CHARLES SHUMAN, President, Illi-
nois Agricultural Assn.
W. T. SPANTON, Chief, Agricultural
Education Branch, Federal Security
Admin., U. S. Office of Education
W. E. STUCKEY, State Manager, Ohio
Rural Electric Cooperatives, Inc.
DAWSON C. WOMELDORFF, Man-
ager, Agricultural Sales, Public Serv-
ice Co. of Northern Illinois
CHARLES WORCESTER, Farm Service
Director, Radio Station WMT
CARLTON ZINK, Products Research
Dept., Deere & Co.



AGRICULTURE'S PART IN HIGHWAY SAFETY



Agriculture was fully represented, and for the first time participated as a major group, in the White House Conference on Highway Safety. There was strong, cooperative agreement that agriculture and its many organized units can and should play an important role in getting public cooperation in solving the traffic problem.

Need for county inventories of accident problems and prevention work was emphasized because of the increasing importance of traffic in rural areas. A survey blank was sent to county extension agents through a special issue of the FARM SAFETY REVIEW. Returns are now being summarized which will furnish the basis for more active participation by rural groups.

Another step in making agriculture's traffic safety participation more effective is the "Lite-Farm Equipment" campaign sponsored jointly by cooperating state Farm Safety Committees and the Council. This campaign will supplement efforts of manufacturers and implement dealers to get adequate lighting of farm equipment on highways.

Most new tractors are equipped with front and rear lights and facilities for lighting towed implements. But there are millions of pieces of unlighted equipment now on farms. When they are used on highways after dark, lives of tractor operators and motorists are endangered.

Farm youth are being mobilized, state by state, in

an intensive drive for reflective lighting of farm equipment. This provides a unique opportunity for 4-H and FFA members to enlist in a nation-wide movement for greater rural highway safety.

Reflective materials used in the campaign meet recommendations of the National Committee on Uniform Traffic Laws for supplementary lighting. To fully comply with the Uniform Vehicle Code, self-propelled equipment should be equipped with special tail-lights that are, or soon will be, available at implement dealers.



NATIONAL INSTITUTE FOR FARM SAFETY

The Council again sponsored the National Institute For Farm Safety, the ninth, held this year in Pennsylvania. Full time workers in farm safety from Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Mississippi, Missouri, New York, Ohio and Pennsylvania were enrolled, as well as a number of guest participants. The program included new developments in farm safety and detailed reports of projects being promoted in the various states represented.

OTHER farm safety activities included:

- Aid in planning tractor stability demonstrations.
- Encouraging research in heat lamp installation.
- Assistance on accident surveys.
- Encouraged formation of the joint Electric Fence Committee.
- Activity of the Farm Conference's Committee on Electric Lighting of Farm Equipment.

NATIONAL COMMITTEE FOR FARM SAFETY

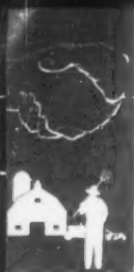
... provides sponsorship and develops adequate, permanent support for the Council's work in farm safety. To constantly broaden the base of support for farm safety, the Committee is seeking the cooperation and assistance of such additional groups as feed manufacturers, dairy manufacturers, meat packers, petroleum and insurance.

CHAIRMAN

J. T. CALLAWAY, Asst. to the Vice President, Goodyear Tire & Rubber Company
E. J. CONDON, Vice President Sears Roebuck & Company served as CHAIRMAN 1951-53
THEO BROWN, Director Deere & Company
GEORGE C. DELP, President New Holland Machine Co.
KIRK FOX, Editor Successful Farming

CLYDE H. HENDRIX, Vice President Pillsbury Mills, Inc.
ROY C. INGERSOLL, President Borg Warner Corp.
DORSEY KIRK, Master Illinois State Grange
BRUCE LOURIE, Vice President Deere & Company
CAP MAST, Editor Agricultural Leaders' Digest
P. V. MOULDER, Executive Vice President, International Harvester Co.

HERSCHEL D. NEWSOM, Master National Grange
G. L. NOBLE, Managing Director National Committee on Boys & Girls Club Work
CAROLL G. PEARSE, Vice President J. I. Case Company
H. A. PRAEGER, President Kansas Farm Bureau
W. A. ROBERTS, President Allis-Chalmers Mfg. Co.
CHARLES SHUMAN, President Illinois Agricultural Association
A. E. SPOTTKE, Vice President Allstate Insurance Co.
P. O. WILSON, Secretary-Manager National Livestock Producers Assn.



- Planning and judging safety aspects of the National Plowing Contest and National Corn Picking Contest.
- Award programs which brought the following deserved recognition: Press, 19; Radio, 33; Organizations and Companies, 1; Individuals, 11.
- Fire and Youth sessions at the Congress were successful and will be repeated in 1954.
- Publication of:
 - A ladder leaflet which is being given national distribution by a trade association.
 - Handbook for State Farm Committees.
 - Handbook for 4-H Leaders.
- Staff spent 238 days in 40 states assisting farm safety committees, fostering formation of additional state committees, and aiding agricultural extension, vocational education and youth groups.

PUBLIC INFORMATION highlights included:

- Farm Safety Week.
- One Rythm and Reason, disk jockey, script on farm safety.
- Distribution of 120 safety announcements to 866 farm announcers.
- Four press releases from the Congress.

ACCIDENT FACTS included five pages on farm accidents with new material on:

- Special study in Minnesota showing principal sources of deaths around the home and at work.
- Study of injuries in rural homes in Delaware showing principal kinds of accidents, including places and circumstances of falls.
- Two pages on motor vehicle accidents trace death totals and rates from 1939 through 1953 and show principal kinds of accidents. Farmers are compared with non-farm drivers.

PUBLICATIONS and service income in 1953 was \$16,700 principally from **FARM SAFETY REVIEW**. With a circulation of 27,500, **FARM SAFETY REVIEW** is reaching an impressive list of active farm safety workers, including sponsored national coverage of agricultural extension workers, agricultural engineers, and farm equipment dealers. For the first seven months of 1954, income is up \$24,000, largely from distribution of "lite-farm-equipment" supplies.



STAFF

Five staff members worked in the Farm Division. However, substantial time was spent on behalf of farm safety by the staff members of other units, for example: The Public Information Department which handles all radio, press, and TV, including the Advertising Council; the Membership and Service Departments which process sales and shipments of publications; the Statistical Division; the Library;

and other units handling office-wide functions. Further information on Council income and expense relating to all fields of safety will be found on pages 4 and 5.

NEEDS

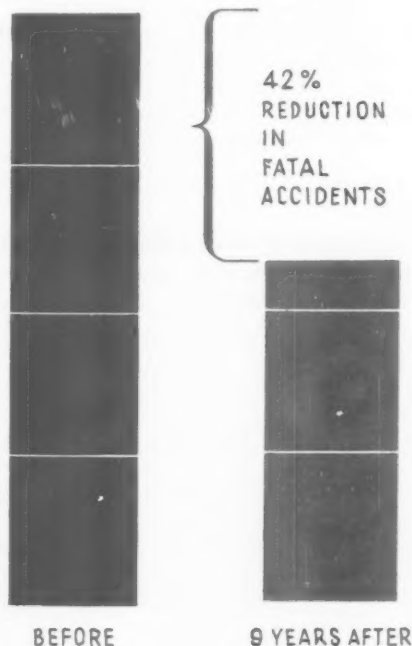
During the past ten years limited funds and personnel have shown outstanding results. The soundness of accelerating and broadening the movement is evident.

► More volunteer leaders, more specialists, more organized effort and more cooperation, are needed to carry the program to every community and every farm.

► More visual aids, more educational guides, more exhibits and other program materials will be needed. Further research and surveys must be undertaken to develop better approaches or solutions for special problems.

► Increased assistance and guidance will multiply achievements through rural youth and other organized groups. There are millions of willing workers. Resources and facilities to expand the program must be found to capitalize on the firm foundation that has been built.

SOUND PROGRAMS BRING TANGIBLE RESULTS IN FIVE STATES



COMMUNITY AND STATE ORGANIZATION



Vice-President for
Local Safety Organizations
ROBERT R. SNODGRASS
President, Atlas Auto Finance Co.

"Methods of accident prevention are well advanced. The urgent need now is for more extensive application of these measures in states and cities. This requires, particularly in traffic and transportation, the organized efforts of official agencies working with non-official groups and business and civic leaders. The Council strives to develop community and state safety councils which can provide this coordinated attack, and gives continuing assistance to these organizations.

"Substantial impetus was given the local safety council movement by the White House Conference on Highway Safety, which declared the urgent need for actively functioning civic safety agencies in every community and state, and pledged support for well-conceived, existing organizations, and for the establishment of new organizations where needed."

—Robert R. Snodgrass



THE CONFERENCE

Although completely autonomous, Class "A" Chapters of the Council (those with full-time managers) are linked together through the Conference of Local Safety Organizations, composed of the manager and president of each. The Conference develops policies regarding local organization for recommendation to the Council Board, formulates procedures recommended by the group to local organizations, advises the Council staff, and serves as a medium for exchange of program experience.

In 1952, the Conference recommended that Chapters expand activities in traffic and transportation, especially cooperative action with public authorities and other groups for relief of traffic congestion, long-range traffic planning, sound enforcement, and vigorous public information programs. This policy was endorsed by the Council's Board.

Some local boards of control acted on this policy recommendation. Others have not yet been able to develop the necessary leadership, both in personal participation and in financial support, for expanded objectives and program.

STATUS OF LOCAL ORGANIZATION

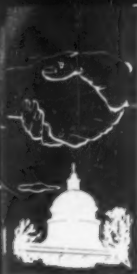
Safety councils in cities of roughly 75,000 population and over require services of full-time paid managers. Current status of organizations in cities down to 50,000 population is summarized in the accompanying table.

POPULATION	ORGANIZATIONS WITH FULL-TIME STAFF		WITHOUT FULL-TIME STAFF
	CHAPTERS	OTHER	
over 1,000,000	3	2	0
500,000 - 1,000,000	9	1	3
250,000 - 500,000	14	5	4
100,000 - 250,000	24	0	41
50,000 - 100,000	12	2	116
Totals	62	10	164

STATE ORGANIZATIONS

Twenty-one state safety organizations are in active operation with citizen representation and full-time salaried staffs. These organizations vary widely in structure, membership representation, program, and effectiveness. Ten are supported by private funds, and eleven by state governmental funds. Nine are Chapters of the Council.

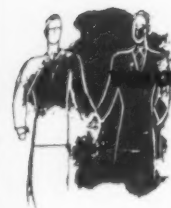




CHAPTERS

In addition to the 62 community and nine state Chapters listed above, Chapters in smaller cities (including those with part-time managers) and two in Canada bring the current total to eighty-two.

The 80 U. S. Chapters in 1953 employed a total of 237 full-time staff. Their aggregate gross income was over \$1,500,000.



VOLUNTEER ORGANIZATIONS

Several hundred safety councils and committees operate in the smaller communities. Most are entirely volunteer organizations, but a few employ part-time secretaries or managers. At present 136 of these receive Council membership services designed for such groups. From the sheer number of small communities in the nation, field service to develop and assist organizations of this kind can best be provided through state organizations.



MANAGERS' INSTITUTE

The 1954 Institute for Safety Council Managers was held at Northwestern University in cooperation with the Traffic Institute. The program was planned to provide assistance in expanding traffic programs, as well as overall organizational problems. Thirteen Chapters were represented. Expansion of such training on a regional basis is planned.



ANNUAL INVENTORY AWARDS

Of seven first-place awards to cities over 50,000 population in the 1953 Annual Inventory of Traffic Safety Activities, six were Chapter cities.

Of 56 first-place awards for achievement in various sections, including Accident Facts, School Safety, Public Information, Safety Organization, Traffic Engineering, and Traffic Law Enforcement, forty-two (75%) were won by Chapter cities.

Inventory activities represent the work of many individuals and groups, especially governmental agencies, but cumulative effectiveness of Chapters in stimulating community effort and support is reflected in the Award records.

OTHER AWARDS



The Council's Special Achievement Awards recognize Chapters for programs directed at specific problems. Typical entries report: comprehensive community accident surveys in cooperation with hospitals, and coordinating pedestrian enforcement and education on an area-wide basis.

Of the thirty entries in 1953, sixteen related to traffic programs; and the remaining eight to child, farm, and public safety programs. Seven entries were voted awards, and eight were given honorable mention.

Awards are also made annually to the Chapters showing the largest reductions in industrial injury rates and commercial vehicle accident rates, as reported in local contests.

In 1953, four Chapters earned Awards administered by the Council's Home Conference.

FIELD SERVICE

Field service to develop new organizations and assist existing councils is provided by the Field Organization Department staff of six professional people, working from headquarters and from the regional offices in New York and San Francisco. An important phase is presentation of comprehensive analyses developed by the Annual Inventory of Traffic Safety Activities, and discussion of recommended traffic control improvements with officials and civic leaders in Chapter cities and in cities where organization work is under way. The three field representatives of the Inventory assist in work with state organizations. Other staff units also assist in field work on specific subjects.

The large number of communities without organized programs of accident prevention presents a real challenge and opportunity for the future.

NEEDS

To develop local organizations to deal with today's problems in cities and states, the important needs are:

- Leadership awareness of problems, agreement on objectives and methods, and acceptance of responsibility.
- Crystallized standards, programs, and methods.
- An adequate, properly trained field staff.

NATIONAL SAFETY COUNCIL CHAPTERS



Atlanta Traffic and Safety Council
Fred B. Moore, President
Robert B. Leopold, Managing Director
Baltimore Safety Council
George Elste, President
John P. Rostmeyer, Exec. Secy.
Blackstone Valley Safety Council (Paw-
lucket, R. I.)
Harold Stanzler, President
John J. Booth, Manager
Caddo Bossier Safety Council (Shreve-
port)
M. J. Lesaigne, President
Col. Charles E. Doerler, Managing Dir.
Chattanooga Safety Council
Charles B. Shelton, Jr., President
Mrs. Lapsley W. Hope, Exec. Secy.
Citizens Safety Council of Hillsborough
County (Fla.)
Carl Brorein, Jr., President
Carl H. Roch, Exec. Secy.
Concord Safety Council (N.H.)
Henry R. Murray, Chairman
George P. Dawson, Exec. Secy.
Denver Chapter
Robert G. Stovall, Jr., President
Duluth Chamber of Commerce Safety
Bureau
John L. McEachin, Director-Chairman
George A. Nothhelfer, Safety Director
Eastbay Chapter (Oakland, Calif.)
Paul Reagor, President
Clinton W. Dreyer, Managing Director
Fort Worth Safety Council
Charles W. Needham, President
Dr. W. J. Danforth, Manager
Greater Chicago Safety Council
John J. Ahern, President
Joseph F. Stach, Manager
Greater Cincinnati Safety Council
Fred B. Rauch, President
Raymond E. Cliff, Executive Director
Greater Cleveland Safety Council
Harold Gorman, President
Carl L. Smith, Exec. Vice-President &
Secy.
Greater Grand Rapids Safety Council
Herbert Ter Meer, President
E. Ross Farra, Manager
Greater Los Angeles Chapter
L. W. Van Aken, President
Joseph M. Kaplan, Secy-Manager
Greater New York Safety Council
Reginald M. Cleveland, President
Paul F. Stricker, Exec. Vice-President
Greenwich Safety Council (Conn.)
Jack Cluett, President
Sherburne Prescott, Exec. Director
Hamilton Safety Council (Ohio)
Paul Weishaar, Jr., President
W. Russell Hicks, Director
Indianapolis Safety Council
R. C. Mueller, President
Jack E. Gunnell, Director
Jacksonville Safety Council (Fla.)
Walter J. Conlon, President
Mrs. Lennie L. Humphries, Exec. Secy.
Kalamazoo Safety Council
A. E. Kiegmann, President
E. M. Gearhart, Jr., Director-Secy.
Kansas City Safety Council
C. G. Roush, President
George M. Burns, Managing Director
Lansing Safety Council
George J. Blalock, President
Harold F. Lillie, Director
Lehigh Valley Safety Council (Bethle-
hem, Pa.)
Harry N. Crowder, President
Harold A. Seward, Manager
Louisville Safety Council
J. F. Kurfess, President
Capt. Estel Mack, Exec. Vice-President
Maricopa County Chapter (Phoenix,
Ariz.)
J. R. Long, President
Marion Trowbridge, Manager
Metropolitan New Orleans Safety
Council
E. M. Rowley, President
Dudley Andry, Exec. Secy.
Middletown Safety Council (Ohio)
L. W. Howe, President
Paul E. Wilson, Director

Milwaukee Safety Commission
A. S. Fredrickson, Chairman
Dr. B. L. Corbett, Exec. Director
New Haven Safety Council
E. Stanley Taylor, President
Julien H. Harvey, Exec. Director
Oklahoma City Safety Council
William Gill, Jr., President
Dan Hollingsworth, Manager
Omaha Safety Council
Glenn L. Cavanaugh, President
Harry Hatcher, Manager
Pasadena District Chapter
Joseph M. Kaplan
Philadelphia Safety Council
J. Howard Myers, Chairman
Walter W. Matthews, Managing Dir.
Portland Traffic Safety Comm. (Ore.)
John L. Carpenter, Chairman
William J. Weller, Director
Racine County Safety Council (Wisc.)
Louis S. Ritter, President
Robert M. Sorenson, Exec. Secy.
Richmond Safety Council (Va.)
Victor B. Fitzpatrick, President
James T. Wadkins, Managing Director
Rochester Safety Council (N.Y.)
Miss Irene L. Muntz, President
William H. Keeler, Director
Sacramento Safety Council
Charles L. Pratt, President
Frank Enos, Manager
Safety Council, Chamber of Commerce
of Ft. Wayne (Ind.)
George Hacker, Chairman
Ivan A. Martin, Manager
Safety Council, Dayton Chamber of
Commerce
Dr. J. J. Burbage, Chairman
Marvin Park, Manager
Safety Council Div., Automobile Club
of R. I.
E. S. Harding, Chairman
H. Ben Garvin, Manager
Safety Council of Greater St. Louis
B. H. Sweeney, President
Rayburn Hoffmann, Manager
Safety Council of Greater Youngstown
Myron H. Watkins, President
Charles A. Vimmerstedt, Manager
Safety Council of Western Massachusetts
Edward Shaw, President
James K. Williams, Manager
Safety Division, Syracuse Chamber of
Commerce
David A. Fraser, Chairman
Newell C. Townsend, Manager
St. Joseph Safety Council (Mo.)
Gilbert Burnham, President
Walter D. Ladd, Manager
San Francisco Chapter
Arnold E. Archibald, President
Iver C. Larson, Exec. Vice-President
San Joaquin County Safety Council
(Calif.)
Edward O'Connor, President
Mrs. Lovilla Lalor, Exec. Secy.
Santa Clara County Chapter (Calif.)
Mell R. Duffey, President
Albert H. Wood, Managing Director
Seattle-King County Safety Council
W. J. Billings, President
Paul W. Seibert, Managing Director
Sioux Falls Safety Council
Joseph Pochop, President
Henry S. Feay, Jr., Exec. Secy.
Spokane Area Safety Council
Norman L. Kray, President
Dave Kaye, Managing Director
Twin Cities Area Safety Council (St.
Joseph, Mich.)
John De Vries, President
Gerald W. Shipman, Director
Vancouver Traffic and Safety Council
T. E. Brett, President
James Plaskett, Exec. Secy.
Western Pennsylvania Safety Council
J. E. Goble, President
Harry H. Brainerd, Exec. Mgr.
Worcester County Safety Council (Mass.)
Howard W. Hindes, President
John W. Greene, Manager

Alberta Safety Council
Howard B. MacDonald, President
Howard Stutchbury, Managing Director
Connecticut Safety Commission
Robert I. Catlin, Chairman
William M. Greene, Director
Delaware Safety Council
Reynolds duPont, President
J. James Ashton, Manager
Idaho Chapter, National Safety Council
Robert Van Horne, President
Robert A. Hankey, Manager
Louisiana Safety Association
M. J. Lesaigne, President
Charles E. Doerler, Secretary
Minnesota Safety Council
A. V. Rohwader, President
Alfred Luecke, Manager
New Jersey State Safety Council
Richard P. Mulligan, President
George G. Traver, Exec. Vice-
Pres.
Ohio State Safety Council
Henri Marc, President
H. G. J. Hays, General Manager
Utah Safety Council
Darrel Walling, President
G. Ernest Bourne, Exec. Secy.
West Virginia Safety Council, Inc.
J. A. Mooney, Chairman
Charles Hopkins, Managing Director

Bismarck Safety Council (N. D.)
R. Fay Brown, President
J. N. Stocker, Exec. Secy.
Bridgeport Safety Council, Inc.
Harry M. Loudon, President
Harmon E. Snots, Secretary
Broome County Safety Council (Johnson
City, N. Y.)
Robert H. Austin, Chairman of
Trustees
Mrs. I. M. McCumber, Secretary
Greater Endicott Safety Council (N. Y.)
Russell Whitman, President
Harriet Reinhart, Secretary
Safety Council Div., South Bend Assn. of
Commerce (Ind.)
E. O. Prange, Chairman
Eli D. Miller, Manager
Saginaw Safety Council (Mich.)
James N. Alcock, President
J. Scotty Wallace, Exec. Secy.
Sioux City Safety Council
Gaylord Smith, President
Elmer S. Swanson, Secretary
Toledo Safety Council
N. M. Shumaker, President
Leon H. Shaffer, Secretary
Utica Safety Council, Chamber of
Commerce
Robert F. Gilmour, Chairman
Vincent R. Corrou, Exec. Secy.

Erie Safety Council (Pa.)
Harry A. Weber, President
Edward Abramowski, Exec. Secy.
Evanston Safety Council (Ill.)
Elmer F. Way, President
Mrs. J. W. Cook, Jr., Secretary
Rahway Safety Council (N. J.)
H. C. Cannon, President
Superior and Douglas County Safety
Council (Wisc.)
Sig N. Lee, President
Miss Elizabeth M. Billmeyer, Secy.



PUBLIC INFORMATION

"For my money, the National Safety Council gets more returns in good will, prestige and public recognition from its investment in public information than any other organization, public or private, in the country. The media have gone overboard to help the Council and safety—and my hunch is they will keep right on doing it, as long as the Council manages to make real news out of safety."

—Boyd Lewis



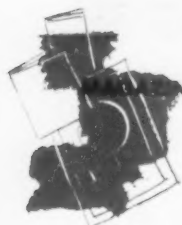
Vice President
for Public Information
BOYD LEWIS
Vice President and Executive
Editor NEA Service, Inc.

Since the Public Information program of the National Safety Council serves all fields of accident prevention, many specific elements of this program are described in the reports of the program divisions of the Council on other pages.

However, those activities give no indication of the dramatic and encouraging increase in acceptance by the media of the Council's Public Information services in the last decade. A measurement of this growth is shown below:

GROWTH IN COVERAGE OF SAFETY BY PUBLIC INFORMATION DATA

	1942	1954
NEWSPAPERS		
Inches of space devoted to safety	250,000	950,000
News stories and editorials	25,000	95,000
Pictorial and cartoon mat features	5,000	30,000
Editorial cartoons	150	1,200
NATIONAL MAGAZINES		
Safety features	1	85
RADIO		
Network broadcasts	29	267
Local broadcasts	7,500	45,700
Transcribed programs and spots	0	53,800
Live spots	8,000	700,000
TELEVISION		
Network broadcasts	—	97
Local programs and slides	—	2,150
Film spots	—	5,800
BUSINESS PAPERS		
Papers using stories	75	700
Council features used	450	3,500
EMPLOYEE PUBLICATIONS		
Publications using stories	380	2,000
Stories, cartoons, etc., used	7,500	40,000



BOOKS, POSTERS, ART

Twelve monthly National Safety Council magazines are produced by the Editorial Division of the Public Information Department. Their total circulation is 1,090,032.

The Poster and Art Division has produced more than 10,000 different poster designs since the Council was founded. The current rate is about 300 new poster designs each year.

**Public Information
Conference
1953 - 1954**

Chairman: **BOYD LEWIS**
 Vice-Chairman: **MISS JUDITH WALLER**, Director of Public Affairs and Education, NBC Chicago Office
 Secretary: **PAUL JONES**, Director of Public Information, National Safety Council
L. R. BLANCHARD, General Executive Editor, The Gannett Newspapers
GEORGE A. BRANDENBURG, Editor & Publisher
ROBERT U. BROWN, Editor, Editor & Publisher
WELLS CHURCH, Director of News and Public Affairs, Columbia Broadcasting System
MISS DORIS CORWITH, Supervisor of Talks and Religious Broadcasts, National Broadcasting Company
TED COTT, Vice-President, National Broadcasting Company
J. MONTGOMERY CURTIS, Director, American Press Institute, Columbia University

JOHN EARL DAVIS, President, International Council of Industrial Editors
DON ECK, Executive Secretary, National Editorial Association
BARRY FARIS, Editor-in-Chief, International News Service
CHARLES W. FERGUSON, Senior Editor, The Reader's Digest
HARRY FERGUSON, Executive Editor, United Press
ROBERT FUOSS, Managing Editor, The Saturday Evening Post
MRS. BEATRICE BLACKMAR GOULD, Editor, Ladies' Home Journal
W. EARL HALL, Managing Editor, The Globe-Gazette
WILLIAM RANDOLPH HEARST, Jr., Publisher, New York Journal-American
C. W. JACKSON, President, National Association of Radio Farm Directors
GEORGE JENNINGS, Director, Radio Council, Chicago Board of Education
MRS. MYRNA JOHNSTON, Associate Editor, Better Homes & Gardens
MRS. DOROTHY KEMBLE, Director of Radio and TV Clearance, Mutual Broadcasting System
MISS LAURA LANE, Associate Editor, Country Gentleman
ROBERT D. LEVITT, Director, Hearst Promotion Enterprises
MRS. CLARA SAVAGE LITTLEDALE, Editor, Parents' Magazine

KENNETH MAC DONALD, Executive Editor, Des Moines Register & Tribune
GORDON MANNING, Managing Editor, Collier's
M. J. MURPHY, Editor, Factory Management & Maintenance
WESLEY I. NUNN, Manager, Advertising Department, Standard Oil Company (Indiana)
PAT O'BRIEN, Chairman, Motion Picture, Television and Radio Committee
MISS HELEN C. OTIS, Executive Editor, Woman's Home Companion
JOHN W. PACEY, Director of Public Affairs, American Broadcasting Company
BURR L. ROBBINS, President, General Outdoor Advertising Co.
ROBERT SAUDEK, Ford Foundation
CHARLES SCHNEIDER, Promotion Editor, Scripps-Howard Newspapers
CHEF SHAW, Executive Editor, Newsweek
MISS HELEN SIOUSSAT, Director of Talks, CBS Radio
MISS RUTH TREXLER, Executive Producer of Religious and Educational Programs, American Broadcasting Company
MRS. HELEN VALENTINE, Editor-in-Chief, Charm
BASIL L. WALTERS, Executive Editor, Knight Newspapers, Inc.
JOHN F. WHEDON, Vice-President, Young & Rubicam, Inc.



The "Stop Accidents" Campaign, conducted by The Advertising Council on behalf of the National Safety Council, is now in its ninth consecutive year.

The campaign has grown steadily year by year in scope and acceptance by advertisers, until today it ranks high among the 18 public service

campaigns conducted by The Advertising Council and in some respects is the top-ranking campaign of them all.

Details of the 1954 campaign may be found in the Traffic section of this report. But here are the comparative figures which show the growth of the campaign since it began in 1946:



	1946	1954
Newspaper mats ordered	11,244	46,431
Employee Publications using ads	0	425
Car Cards	70,000	55,500
Outdoor posters	17,000	35,000
Radio and TV home impressions	639,000,000	725,000,000



PUBLIC INTEREST AWARDS

Within the last year 265 public information media have contributed enough space or time to merit the Council's Public Interest Award for Exceptional Service to Safety.

SLOAN AWARD

The Alfred P. Sloan Award for Highway Safety was conferred upon nine recipients in radio and television.

HOLIDAY CAMPAIGNS

Bigger public acceptance than ever, and fast becoming a trademark of the Council.

ODD ACCIDENT STORY

This annual humorous feature story with cartoons on actual freak accidents is given a big play throughout the country by newspapers, radio stations and magazines.

WOMEN'S ACTIVITIES

"The Council's leadership is bringing all areas and interests together in a single purpose—the prevention of accidents. Each year more and more qualified women are appointed to significant positions in public safety, serving on commissions and with local safety organizations. And throughout the country the number of women's organizations and parents' groups actively participating in community safety programs is obviously increasing, with gratifying results. This is as it should be, for only through an aroused citizenship can positive results be realized."

—Miss Marion E. Martin



Vice President for Women's Activities
MISS MARION E. MARTIN
Commissioner, Department of Labor and Industry
Augusta, Maine

VICE

With the objective of stimulating safety activity throughout the country by women, and women's and parents' groups, the Women's Division, in the last twelve months, distributed to women who requested help:

- 112,000 Targets for Traffic Safety, a promotional leaflet.
- 102,000 Targets for Home Safety, supporting the theme-for-the-month program.
- 31,000 Chartered for Safety, a newsletter.

Through limited field service and by extensive correspondence, women are assisted in giving practical, effective aid to safety. The Women's Division draws on the technical and professional staffs of the Traffic, Home, Farm, School, Industrial and other Divisions, both to coordinate women's programs with established work and to give sound technical advice in the many areas of activity.

CAROL LANE AWARDS

The Carol Lane Awards, a grant project, are designed to give recognition to individual American women, and also to women's or parents' groups, for outstanding traffic safety programs. This year 89 nominations were received.

To indicate how important and effective women can be in traffic safety, two outstanding records are here summarized:

► One woman in Arlington, Va., stimulated 33 women's clubs to make traffic safety an active project and work as a unit. Specific activities included:

- A Highway Safety Pledge for each club member.
- Brake reaction tests for members.
- Safety slogan contest, the winning slogan used on bumpers of members' cars.
- School zone speed checks.
- A 15-minute radio program, which developed into a regular Saturday feature.

- Recommendations for traffic improvements accepted by the County Board.

- Rallying citizen support for officials' work.

► In Toledo, Ohio, 50 women representing 23 clubs banded together to promote and coordinate traffic safety projects. By May, 1954, 123 clubs affiliated with this group representing a total membership of 15,000 women. Activities during the year included:

- Success on the No. 1 project—a Traffic Safety Commission for Toledo.
- Participation in the Sesqui-Centennial Celebration of Toledo.
- Individual clubs instituted such programs as:
Jay-Walker Campaign
High School Editors Conference
Safety Sabbath Week-End
New Driver Instructions Cards
Armistice Day Parade
Women Drivers' Clinic
Establishment of a Speakers' Bureau

The 1954 Award winners will be honored at the Reception for Women during the 42nd National Safety Congress.



The Carol Lane Award



Vice President
for Membership
ROBERT T. ROSS
Manager, Employee Services
Ford Motor Company

MEMBERSHIP SERVICE

"Council services give low-cost help on important problems, and services are steadily improving. Members continue to help recruit new members, and their efforts are backed up by our direct-mail advertising program which is modern and vigorous. General awareness of need for safety is increasing. Consequently, we are optimistic about continued growth of Council membership. Because membership service is self-supporting, there is no limit to the continued expansion of this side of the Council's operations."

—Robert T. Ross



The Council uses 140,000 addressing plates to service plants, offices, terminals, schools, government agencies, civic groups and others. This is one physical measurement of the tremendous scope of the Council's service to safety interests of all types.

The Council's service records are equally or more complex than those of any other organization, according to outside office consultants. This reflects the wide range of organizations served by the Council, varying purchase and supply procedures of members, new operations, temporary locations, decentralized responsibility, consolidations of operations and all the host of dynamic factors by which business and other organizations adjust to changing conditions. Many of these require special service arrangements, records changes, and other non-routine handling.

Mechanical tabulation, other equipment improvement, staff training, and a special audit of addressing plates are among the means used to reduce service errors and decrease delays in handling special orders, and yet keep service expenses at a minimum. The past year shows additional progress in this direction with further improvement as a continuing objective.

MEMBERSHIP GROWTH

During the twelve months ending in August, 1,433 new memberships were received adding \$60,208 to dues income. The new dues total was 16% lower than the previous comparable figure.

Membership cancellations, after declining for five years have now risen for three years, the current twelve month total accounting for \$34,462 annual dues. However, the current cancellation rate of 3.4% of dues is well below the 12.3% prewar rate.

Total Council annual dues as of June 30, 1954, reached a new all-time high of \$1,004,000.

PUBLICATIONS

Circulations of Council periodicals climbed 5%

or 50,000 per month during the past year. INDUSTRIAL SUPERVISOR led with an 18% increase in use. Orders for safety supplies (other than periodicals and automatic monthly poster services) rose to a total of 47,200—up 6%. The physical volume of material shipped from Council headquarters increased 29% to a total of 605 tons.

Publications sales during the first eight months of 1954 were up \$112,000, or 6%, from the comparable months of 1953.

KEEPING MEMBERS IN

News about services was carried to members by a million directories and circulars.

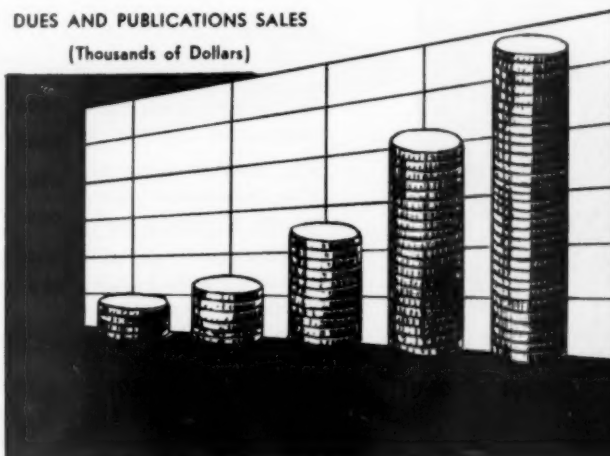
Service correspondence with members and prospective members (excluding consultation by the technical staff) reached a new high of 26,900 letters. Routine notices, acknowledgements, etc. totalled an additional 31,000.

The large exhibit was displayed at 10 regional safety conferences in the past year. Smaller exhibits were furnished for 13 trade association or other conferences.



DUES AND PUBLICATIONS SALES

(Thousands of Dollars)



THE BATTLE PLAN IN THE FIGHT FOR LIFE



To win new victories in the fight against accidents requires special planning in each major field of safety activity. Some of the special needs in each field have been presented in the previous pages. Yet there are striking similarities in the basic needs of all. In fact the battle plan in the fight for life has three basic elements common to every kind of safety activity—Fact-finding, Communication, Action.

FACT-FINDING

Accidents cannot be stopped anywhere unless we know how to stop them. Knowing how to stop them depends on finding out how and why they occur. In a broad sense this means research. First, to secure more knowledge about material things, both old and new—designs, strengths, hazards, layouts—all under conditions of practical, human use.

Second, more knowledge about people, their physical and mental characteristics. We need more professional help from the scientists who are studying the human intellect, emotions and attitudes, and from all those in professions dealing with molding human behavior—educators, advertisers, politicians, managers, and those working in the field of safety itself. All these can examine experience, record effectiveness and assess values.

Third, more knowledge of the effectiveness of the many approaches to accident prevention. There is imperative need for objective standards by which the effectiveness of safety activities can be measured. Those concerned with safety need to rely less on hunch, more on facts; less on guess, more on measurement. Safety activity, just for the sake of activity, may well represent a waste of precious time and money and *lives*. In every field, in every program, ingenuity must be taxed to find realistic yardsticks of accomplishment.

Research is often costly. Even more costly, however, is lack of the knowledge which would cut down the accident toll. We must proceed rapidly and vigorously in this kind of fact-finding, correlation and analysis.

COMMUNICATION

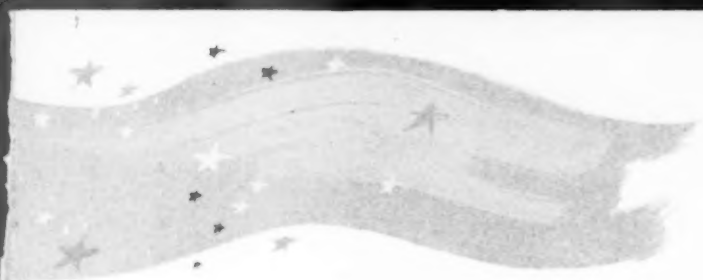
Accident prevention will not succeed, however, just because a relatively few people know how accidents occur and know what mechanical, educational or sociological actions will prevent them. It is a tragic fact that much information on how to prevent accidents never gets in the hands of all those who need the information, and who could make use of it.

The means of communication are many. Magazines, manuals, technical reports, films, newspapers, radio and television, reference sources, conferences and training courses, to name a few.

At least three types of individuals, and therefore three varying needs for information must be recognized in each field of activity: the safety professionals; those who have safety as a part of management or official responsibilities, an important part, but only a part, of their work; and the general population. A large part of communication with the latter two groups, that is, other than the professionals, is done in media which are not primarily safety media.

Different kinds of information need different channels of communication. Therefore, in every field of safety, communications must be examined to see that each is best designed to carry adequate information to those who need it.





ACTION

Fact-finding, in itself, will not prevent accidents. Neither will communication. Accident rates will be held in check only if people—people of all kinds and all walks of life—*act* for safety.

Every individual has two spheres of action. One is in the sphere of his own personal habits. Whether he is driving a car, running a machine, lighting a match, or walking down stairs, his own safety depends in large part on his own conduct.

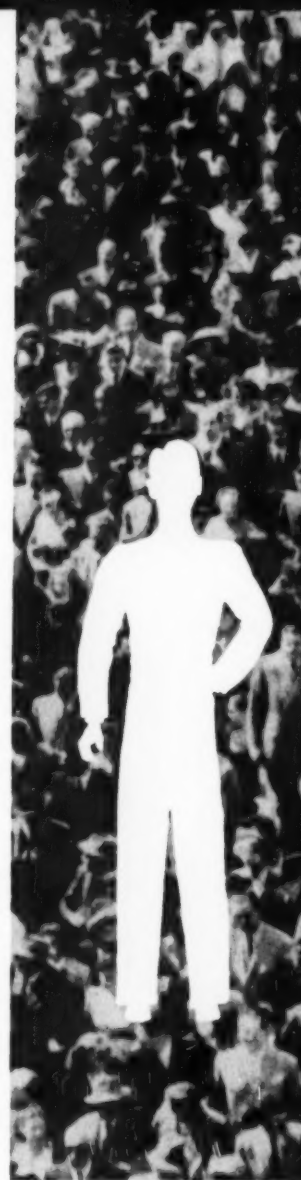
There is, however, a larger sphere of individual responsibility. The actions of every one of us influence not only ourselves; they also influence our families, our fellow-workers, the organizations of which we are members, and the communities in which we live.

The importance of this responsibility increases directly with the number of people who come under our influence. Leadership action for safety, whether in a small or large capacity, can only be positive or negative—there can be no neutrality.

Further progress in accident prevention is going to depend in large part on the degree to which leaders in all spheres accept their responsibility.

Will businessmen, labor representatives, organization leaders of all kinds, and government officials address their skills and knowledge to the accident problem? Will they stand up and be counted for safety—in their businesses, in their organizations, in their communities? Unless they do, significant gains in the fight for life are not likely. When they do, success will be inevitable.

"In union there is strength" is an old proverb, but a true one. Every safety area is related to every other area. Action for safety, to be really effective, must be *cooperative* action.



THE SAFETY MOVEMENT

This is the battle plan in the fight for life—*fact-finding, communication, action*. The success of the safety movement depends on the execution of sound tactical plans in each field of activity, within a well-conceived overall plan. For more than forty years the National Safety Council—its governing bodies, its technical Conferences, its Sectional and other Committees and its Chapters, have served as the means of planning and waging the fight for life.

As safety forces steadily grow, new problems and challenges are presented. The Council's 12,000 members and its hundreds of cooperating organizations will continue to find, within the Council's broad and purposely flexible structures, the means of answering today's and tomorrow's problems.





**NATIONAL
SAFETY
COUNCIL**

**425 NORTH MICHIGAN AVENUE
CHICAGO 11, ILLINOIS**

**A NON-PROFIT ORGANIZATION DEDICATED TO ACCIDENT PREVENTION
FOUNDED 1913 • CHARTERED BY CONGRESS 1953**

1955 *directory*

occupational

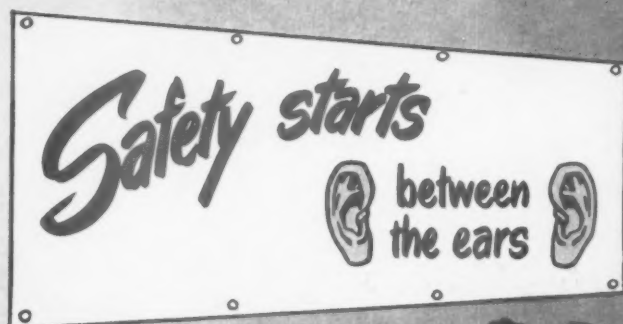
**Safety
Posters**

the ^{TWO} BIGGEST ⁵ thing¹ in safety!

SAFETY BANNERS

A brand-new KING-SIZE promotion—10 feet long—3½ feet high—printed on heavy cloth in four or more sparkling colors!

Indoor style has eight metal grommets for easy hanging. Outdoor style, on extra-heavy cloth, has air vent flaps and ropes firmly stitched into the top and bottom of the banner.



Both styles (same design) available on subscription—one design per month—starting about March 1, 1955. See page 2 for prices.

JUMBO POSTERS

- ★ so **BIG** they can't be missed
- ★ so **COLORFUL** they demand attention
- ★ so **FORCEFUL** they can't be ignored

From the president right down to the office boy, nobody can help but give a thought to safety when passing your Jumbo Poster board. Spotted near the entrance, these giant billboards also carry plenty of community relations value. They literally shout to every passer-by that your company is concerned with the safety and welfare of its workers.

11 feet 8 inches wide by 9 feet 11 inches high, they come in eight sheets for easy handling. The ink and paper used are of regular outdoor quality, and are weather resistant for at least 30 days.

A subscription gives you 12 posters—a new message each month. Plans for erecting an



attractive Jumbo Poster display board will be sent on request. See page 2 for prices.

THE 1955 DIRECTORY OF OCCUPATIONAL SAFETY POSTERS

(This directory supersedes all previous editions. Please order ONLY from this issue and from NATIONAL SAFETY NEWS or PUBLIC SAFETY.)

THE wide selection of "A" and "B" posters presented in this directory will be available for purchase during 1955. "C" size posters (example: 1234-C), while quantity stocked is for a normal year's demand, cannot be supplied after that quantity is exhausted. New posters issued during 1955 will be displayed monthly in the NATIONAL SAFETY NEWS or PUBLIC SAFETY.

These posters are the culmination of the National Safety Council's 41 years' experience in publishing posters directed toward shaping worker attitudes. Choices of subjects were made on the basis of the importance of hazards as indicated by the general accident experience of American industry. Sound psychological principles governed the selection of these varied types of appeals to workers.

This directory with its 744 miniatures posters is designed for use in various industries and the occupations related thereto. The Council's posters specifically in the fields of school, farm, home and traffic (other than related to the motor transportation industry) are not included, except some to implement off-the-job programs.

Posters are grouped into broad subject classifications—see Table of Contents on page 2. *A detailed subject index is presented on pages 70 and 71.* There are references under various subject headings which indicate the location of additional posters related to those particular subjects.

The new safety banners and Jumbo posters are described on opposite page—inside front cover. Samples of special poster sets are shown on inside back cover. *For other poster program aids, see page 72.*

The posters presented in this directory in one color are actually printed in two or more colors. Regular four-color posters, reproduced in color, are grouped in the center section of this publication but, because of mechanical limitations, this section includes posters of various subject classifications. References below regular subject headings will enable you to locate specific four-color posters easily. Dimensions shown below illustrations indicate sizes in which posters are available.

Additional copies of this directory may be obtained at 50c each by writing Membership Service.

published by



NATIONAL SAFETY COUNCIL

425 N. Michigan Ave., Chicago 11, Illinois

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Giant size messages	Inside front cover
Special series posters	Inside back cover

POSTER PRICES TO MEMBERS

	1 to 9	10 to 99	100 to 999	1000 to 4999	5000 to 9999	10,000 to 19,999	20,000 and up
"A" size (8½"x11½")—assorted . . .	\$.12	\$.08	\$.055	\$.045	\$.04	\$.035	\$.032
—same" . . . . .	.12	.07	.05	.04	.035	.032	.029
"B" size (17"x23")—assorted . . . . .	.20	.19	.16	.13	.10	.085	.075
—same" . . . . .	.20	.17	.15	.12	.095	.08	.07
"C" size (25"x38")—each . . . . .	.50	.40	.35	.30			
Annual subscriptions—12 issues . . .	4.00	3.50	3.00	2.50			
JUMBO POSTERS —Annual subscrip., each (12 posters), paid in advance.	54.00	51.00	48.50				
Annual subscrip. on monthly billing	5.40	4.40	4.10				
SAFETY BANNERS —Annual subscrip- tions, each (12 Banners), paid in advance.	1	2 to 9	10 to 49	50 or more			
INDOOR	\$74.00	\$69.00	\$66.00	\$63.00			
OUTDOOR	84.00	79.00	76.00	73.00			
Annual subscription billed monthly							
INDOOR	7.40	6.15	5.60	5.30			
OUTDOOR	8.40	7.00	6.45	6.15			

Orders for indoor and outdoor banners are combined to qualify for lowest quantity prices. Orders for shipment to more than one location may be billed on one invoice at prices for total quantity, plus a \$3.00 annual drop shipment charge per location.

*An order will be considered as "all the same" if each poster is ordered in greater than the minimum quantity in the bracket in which the total quantity falls, e.g. an order for 10 of each of four posters will be billed as "same" since each poster is in the 10-99 price bracket. Prices to non-members are double member prices. The above prices are subject to change without notice. Quantity prices apply only on a single shipment to one location. Other terms are as stated in official price list, Service Guide 2.1.

HOW TO OBTAIN POSTERS

There are two methods:

- 1—You may receive an automatic monthly service of posters selected by Council engineers.
- 2—You may select your posters from this Directory and the new posters illustrated in the poster section of the NATIONAL SAFETY NEWS.

There are advantages to both methods. The automatic service assures you of receiving a carefully planned selection of posters touching the principal sources of accidents in your industry. The posters provided will be balanced from the standpoint of appeals illustrated—ranging from the humorous, cartoon-type to the posters pointing to personal consequences of unsafe acts. And you do not run the risk of an interrupted schedule. Posters will arrive every month at the same time.

Selecting your own posters is obviously a more accurate method. It enables you to gear your poster choices to actual accident experience. You would not have to discard posters because of non-conformance with company operations or because illustrations may not match closely enough your specific operations or procedures.

A Standard Industrial membership includes a specified quantity of posters corresponding to the size of the membership. These posters may be obtained through one or more of the automatic services listed below, or you may order an equal quantity of your own selection any time during the membership year.

If you prefer to select your posters, the quantity provided with the Standard Industrial service is shown on a Poster Credit record, and your orders deducted up to the amount of this credit. Poster Credit is expressed in terms of poster units—1—"A" size = 1 unit; 1—"B" size = 3 units; 1—"C" size = 6 units.

When an order exceeds your remaining credit, you will be charged for the posters in excess of credit balance. Additional Poster Credit may be purchased when the credit provided under your membership is depleted. Many member organizations prefer to purchase additional credit as it saves the expense of processing frequent purchase orders and invoices.

If you have an Industrial Optional membership, you may order posters at any time and have the cost charged to your Service Credit.

If your organization has diversified operations, you may order a combination of the automatic services. Companies with a number of locations can order one or more automatic services for direct shipment to each location.

When ordering an automatic service, simply designate (1) the type of industry from the list below, and (2) the quantity of "A" size (8½"x 11½"), "B" size (17"x23"), and "C" size (25"x 38") desired each month. This information should be shown for each location.

AUTOMATIC POSTER SERVICE

COAL MINING (4)
 LOGGING & LUMBERING (29)
 METAL MINING (15)
 QUARRY—incl. gravel, sand (1)
 CONSTRUCTION (5)
 CEMENT—incl. gypsum & asbestos (2)
 GLASS & CERAMICS (13)
 CHEMICAL (3)
 FERTILIZER (40)
 FOOD
 Bakery & Candy (7C)
 Canning & Grocers (7B)
 Brewers (7E)
 Distillers (7D)
 Dairy Products—incl. margarine (7A)
 Grain Products—incl. linseed oil (7F)
 Ice Mfg. & cold storage (7G)
 Meat Packing (14)
 Salt Mfg. (18E)
 Sugar (7H)
 Misc. or not otherwise classified (7J)
 FORGING (8)
 FOUNDRY (9)
 HEAVY STEEL FABRICATION—incl. shipbuilding (10)
 MACHINE SHOPS (12)
 METAL STAMPING (16)
 STEEL MANUFACTURING (25)
 AIRCRAFT MANUFACTURING (33A)
 ELECTRICAL EQUIPMENT MANUFACTURING (11)
 PETROLEUM (20)
 PRINTING (18D)

PUBLIC UTILITIES
 All operations (21)
 Electric Power only (21A)
 Gas only—not pipe lines (21B)
 PULP & PAPER—incl. box mfg. (19)
 RUBBER MANUFACTURING (22)
 LAUNDRIES & DRY CLEANING (18B)
 HOSPITALS & PUBLIC INSTITUTIONS (18H)
 HOTELS & RESTAURANTS (18G)
 MERCANTILE—RETAIL STORES (18F)
 RESTAURANTS ONLY (18J)
 WAREHOUSES (18K)
 TANNERS & LEATHER MANUFACTURING (26)
 TEXTILE (28)
 WOOD PRODUCTS MANUFACTURING (30)
 AIR TRANSPORT (33B)
 MARINE
 Vessel operations (31)
 Stevedoring (31A)
 RAILROAD (24)
 CITY BUS—TRANSIT (6)
 INTER CITY BUS (27)
 TAXICAB (35)
 CITY TRUCK (36)
 TRUCK TERMINAL (38)
 INTERCITY TRUCK (41)
 SALES TRUCK (42)
 BUS TERMINAL (43)
 GENERAL—other industries (39)
 TRAFFIC—state departments (32)
 COMMUNITY SAFETY ORGANIZATIONS (37)

TO USE POSTERS MOST EFFECTIVELY

The worth of the safety poster has been demonstrated so often that there can be no question about its value in any industry program. Invariably it proves an effective medium for attracting the employees' attention and getting across a safety message that will stick.

Here are four general rules to make your poster program more successful:

1. **Select posters for variety.** Select a balanced supply of posters in a variety of sizes and a proper proportion of thought-provoking vs. inspirational, serious vs. humor, long-message vs. short-message "flash" types.

2. **Place posters strategically.** Test the effectiveness of different locations. Use short, "flash" type posters where traffic is on the move. Long message posters are more effective in places where traffic moves slowly or can stop easily—such as washrooms, stockrooms, lunchrooms, smoking areas, and in work areas, or near hazardous operations.

3. **Display posters attractively.** Provide board or frames for displaying your posters. Most important of all, see that your posters are illuminated adequately. Never gang up a large display of posters. Three on a single bulletin board are usually the maximum. Keep them apart from other material on the board.

4. **Change posters frequently.** Posters not intended for permanent display should be changed once a week. Try to add to or change some part of the board each day, using news items, announcements, photographs, etc.

The National Safety Council's Safe Practices Pamphlet No. 38, "Safety Posters and Bulletin Boards," contains more detailed discussion and illustrations of effective poster use.

TO PLAN YOUR POSTER SELECTIONS

Chart your program. Posters should be selected on the basis of plant accident experience. If 15 per cent of the accidents occur in handling materials, approximately that proportion per month should be aimed at this objective. A further breakdown might be made by choosing a poster on lifting every two months, with other posters on carrying, using hand trucks, use of gloves, safety shoes, etc., at specified intervals. The same procedure can be followed for other principal sources of injury.

Seasonal, housekeeping, first aid, fire and other general subjects should be scheduled regularly. Several posters per year can cover observing signs, reporting conditions and accidents, horseplay, and off-the-job accidents. These are shown in this Directory under "Miscellaneous."

Selecting your posters. From the poster section of NATIONAL SAFETY NEWS each month select those new posters that best fit your accident pattern. These posters were just produced and are being shown for the first time. For additional posters required, make your selections from the wide variety in this Directory.

Poster planning aid. A printed Poster Distribution Chart—11"x17" in size—is available to all members without charge. It is designed to facilitate planning your entire year's poster requirements by months. Write Membership Dept., N.S.C.

GENERAL APPEAL

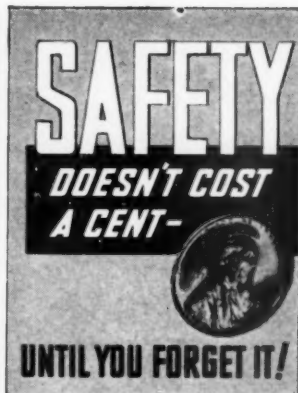
See also: p. 33-35.



NATIONAL SAFETY COUNCIL

0043-B

17x23



NATIONAL SAFETY COUNCIL

0096-B

17x23



NATIONAL SAFETY COUNCIL

0003-A
0255-C

8 1/2 x 11 1/2
25x38



NATIONAL SAFETY COUNCIL

9763-A

8 1/2 x 11 1/2

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL

0111-B

17x23



NATIONAL SAFETY COUNCIL

9843-A
0102-C

8 1/2 x 11 1/2
25x38



NATIONAL SAFETY COUNCIL

0128-A
0217-C

8 1/2 x 11 1/2
25x38

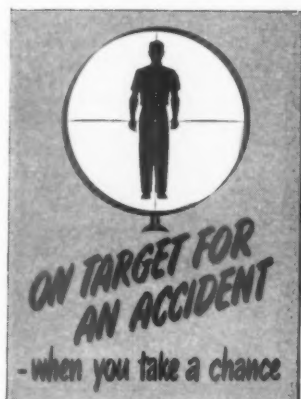


NATIONAL SAFETY COUNCIL

0239-A

8 1/2 x 11 1/2

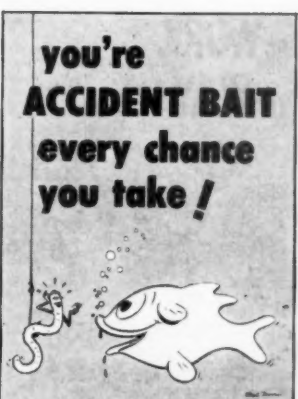
POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL

0020-B

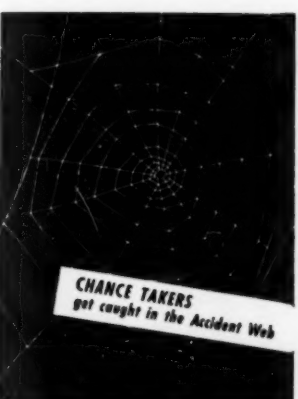
17x23



NATIONAL SAFETY COUNCIL

0063-B

17x23



NATIONAL SAFETY COUNCIL

0120-B

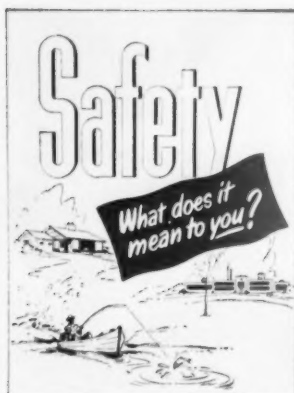
17x23



NATIONAL SAFETY COUNCIL

0125-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL
0275-B 17x23



NATIONAL SAFETY COUNCIL
0144-B 17x23



NATIONAL SAFETY COUNCIL
0164-B 17x23



NATIONAL SAFETY COUNCIL
9745-A 8 1/2x11 1/2

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
0073-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0039-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9964-A 8 1/2x11 1/2

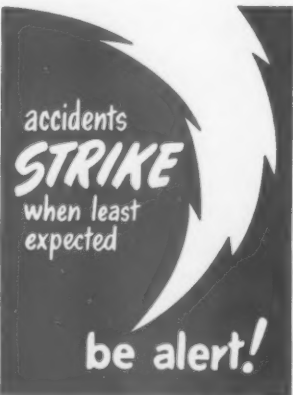


NATIONAL SAFETY COUNCIL
0009-A 8 1/2x11 1/2
0346-C 25x38

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



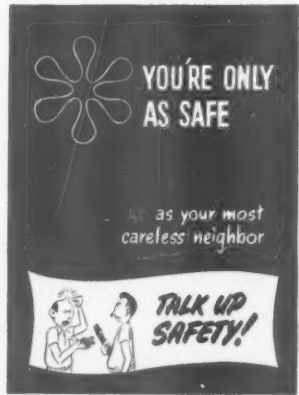
NATIONAL SAFETY COUNCIL
0135-B 17x23



NATIONAL SAFETY COUNCIL
0214-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0277-A 8 1/2x11 1/2



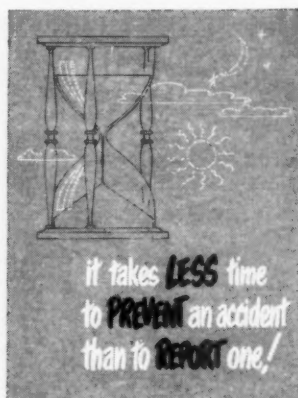
NATIONAL SAFETY COUNCIL
9874-A 8 1/2x11 1/2
0133-C 25x38



NATIONAL SAFETY COUNCIL

0172-B

17x23



NATIONAL SAFETY COUNCIL

0238-B

17x23



NATIONAL SAFETY COUNCIL

9921-A
0161-C

8 1/2 x 11 1/2
25x38



NATIONAL SAFETY COUNCIL

0070-A

8 1/2 x 11 1/2

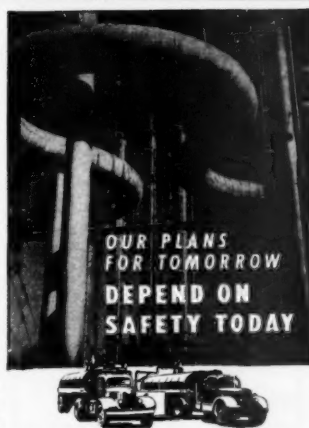
WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL

0149-A
0306-C

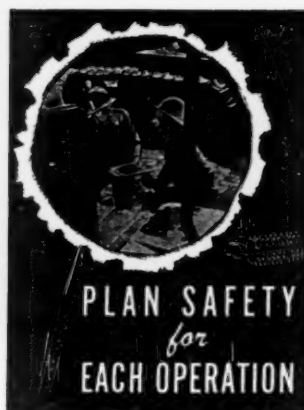
8 1/2 x 11 1/2
25x38



NATIONAL SAFETY COUNCIL

8177-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8442-A

8 1/2 x 11 1/2

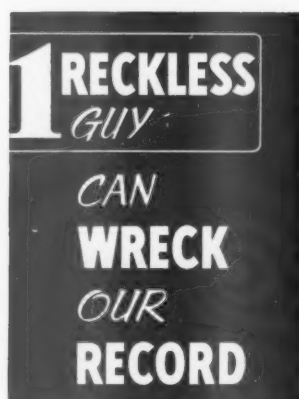


NATIONAL SAFETY COUNCIL

0280-A
0350-C

8 1/2 x 11 1/2
25x38

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL

0311-B

17x23



NATIONAL SAFETY COUNCIL

0141-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0215-A

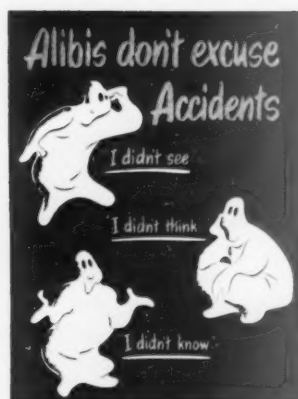
8 1/2 x 11 1/2



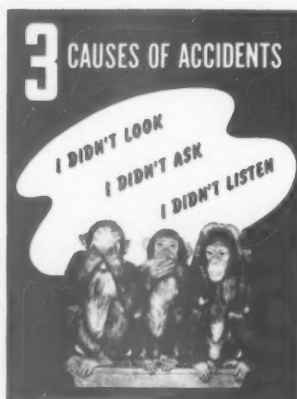
NATIONAL SAFETY COUNCIL

0252-A

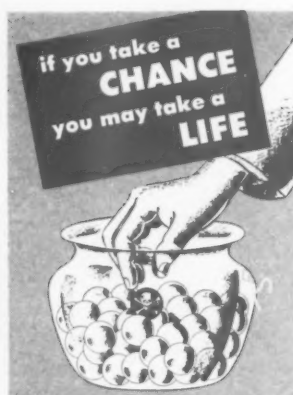
8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL
0092-B 17x23



NATIONAL SAFETY COUNCIL
9802-A 8½x11½



NATIONAL SAFETY COUNCIL
0004-A 8½x11½



NATIONAL SAFETY COUNCIL
0211-A 8½x11½

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
9394-A 8½x11½



NATIONAL SAFETY COUNCIL
0022-A 8½x11½

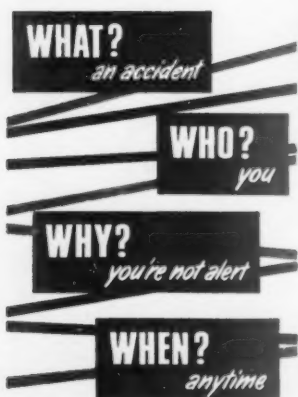


NATIONAL SAFETY COUNCIL
0307-A 8½x11½



NATIONAL SAFETY COUNCIL
0261-A 8½x11½

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



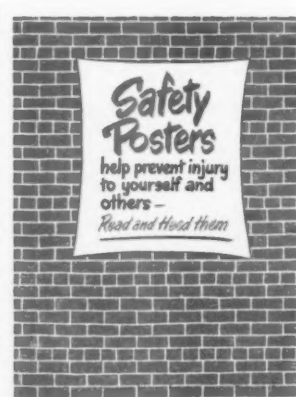
NATIONAL SAFETY COUNCIL
0165-B 17x23



NATIONAL SAFETY COUNCIL
0116-B 17x23



NATIONAL SAFETY COUNCIL
0312-B 17x23



NATIONAL SAFETY COUNCIL
0231-A 8½x11½

FIRST AID & HEALTH

See also: p. 42—8053-A; p. 58—0300-A, 7370-A, 7401-B.

STARTING from SCRATCH



NATIONAL SAFETY COUNCIL

0124-B

17x23

MINOR INJURY

may mean

MAJOR OPERATION

Get first aid fast!

NATIONAL SAFETY COUNCIL

8581-B

17x23



NATIONAL SAFETY COUNCIL

8702-B

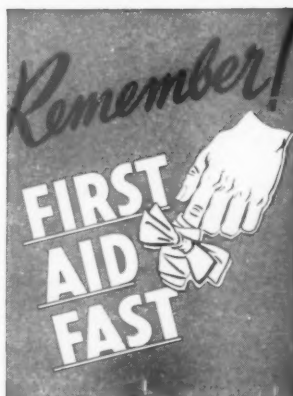
17x23



8997-A

8 1/2x11 1/2

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL

0110-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0013-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0295-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9625-A

8 1/2x11 1/2

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL

9252-B

17x23



NATIONAL SAFETY COUNCIL

9564-B

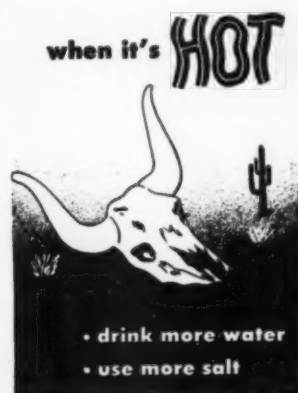
17x23



NATIONAL SAFETY COUNCIL

0137-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0229-A

8 1/2x11 1/2

**YOU NEED SUNSHINE
...but avoid OVER-EXPOSURE**



NATIONAL SAFETY COUNCIL
8945-A 8½x11½

SUN STROKE
Prevention: Avoid outdoor exposure in hot sun. Wear light clothing. Drink fluids and keep cool. Avoid heat and sun from 11 AM to 3 PM.

SYMPTOMS
Headache, Dizziness, Nausea, Vomiting, Sweating, Thirst, Weakness, Rapid Pulse, High Blood Pressure, High Temperature.

TREATMENT
Call Doctor. Remove Person to Cool Place. Loosen Clothing. Lay Person on Back—Head Elevated. Apply Cold to Forehead, Chest, Arms, Thighs. Give Fluids if Conscious. If Unconscious, Give Water or Fruit Juice.

HEAT EXHAUSTION
Prevention: Avoid overexposure to heat. Do Not Exercise in Hot Weather. Avoid Cold Drinks. Perspiration Absorbents. Remove Wet Clothing.

SYMPTOMS
Headache, Dizziness, Nausea, Vomiting, Sweating, Thirst, Weakness, Rapid Pulse, High Blood Pressure, High Temperature.

TREATMENT
Call Doctor. Remove Person to Cool Place. Loosen Clothing. Lay Person on Back—Head Elevated. Apply Cold to Forehead, Chest, Arms, Thighs. Give Fluids if Conscious. If Unconscious, Give Water or Fruit Juice.

NATIONAL SAFETY COUNCIL
8428-B 17x23

**A GOOD NIGHT'S
Sleep**
Means
A SAFER DAY'S WORK

NATIONAL SAFETY COUNCIL
0097-A 8½x11½

**COLDS are
catching**

**COVER
the
COUGH**

NATIONAL SAFETY COUNCIL
0301-A 8½x11½

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS

**AVOID
SKIN TROUBLE**

Keep Clean!

- ☒ **KEEP YOUR HANDS CLEAN**
Wash hands and forearms up to elbows with soap and water at the sink with soap and water. A good brush is better than any soap.
- ☒ **WEAR CLEAN CLOTHES**
Get washed clothing should be laundered or washed before wearing again.
- ☒ **DO NOT USE SOLVENTS TO CLEAN THE SKIN**
These skin may become dry and cracked due to removal of natural skin oils. Use soap, water and gentle rubbing.
- ☒ **USE FIRST AID ATTENTION FOR ALL CUTS AND SCRATCHES**

NATIONAL SAFETY COUNCIL
0090-B 17x23

**You can AVOID
DERMATITIS**

Chemicals are best safeguarded when wearing skin is exposed to contact. Wash frequently.

NEVER wash with solvents that have defatting action and take away skin's natural protection.

Protective creams applied to hands and other exposed areas before work provide added security.

You'll be safer here (under water in clean clothing). Changes should be made when work and with solvents. Use gloves.

Protective clothing such as gloves, aprons, etc., should be worn when suitable to protect against any potential clothing.

NATIONAL SAFETY COUNCIL
9594-B 17x23

prevent skin infection

WASH THOROUGHLY

NATIONAL SAFETY COUNCIL
9568-A 8½x11½

**SAVE YOUR
SKIN!**

**USE SOAP
...NOT SOLVENT**

NATIONAL SAFETY COUNCIL
8123-A 8½x11½

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION

**Poison
IVY OAK**

**1. Know 'em
2. Avoid 'em**

NATIONAL SAFETY COUNCIL
8690-A 8½x11½

**for health
and safety**

**KEEP LOCKERS
CLEAN!**

NATIONAL SAFETY COUNCIL
8747-A 8½x11½

**ARM-LIFT, BACK-PRESSURE METHOD
ARTIFICIAL RESPIRATION**

NATIONAL SAFETY COUNCIL
9593-B 17x23

**HIP-LIFT, BACK-PRESSURE METHOD
ARTIFICIAL RESPIRATION**

NATIONAL SAFETY COUNCIL
9596-B 17x23

FALLS

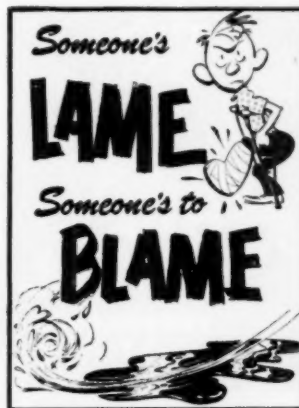
See also: p. 16—9713-A; p. 25—0035-A, 8490-A; p. 36—7353-A, 7553-A, 7887-A; p. 55—9434-A, 9714-A; p. 57—7416-A.



NATIONAL SAFETY COUNCIL
7807-B 17x23



NATIONAL SAFETY COUNCIL
0254-A 8 1/2x11 1/2

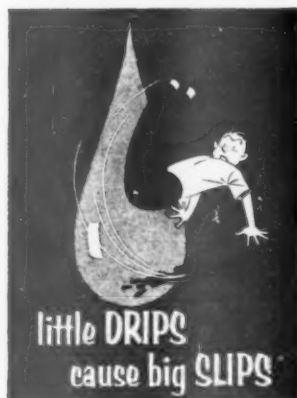


NATIONAL SAFETY COUNCIL
0024-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9670-A 8 1/2x11 1/2
0136-C 25x38

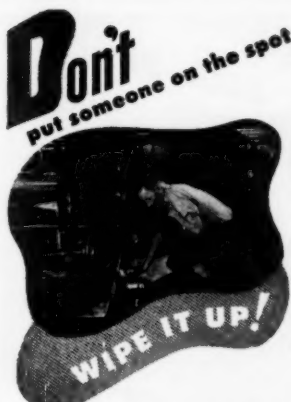
WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL
0169-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8834-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8042-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0266-A 8 1/2x11 1/2

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL
0079-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0234-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
7874-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0042-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0186-B 17x23



NATIONAL SAFETY COUNCIL
0170-A 8½x11½



NATIONAL SAFETY COUNCIL
7879-A 8½x11½



NATIONAL SAFETY COUNCIL
9824-A 8½x11½

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



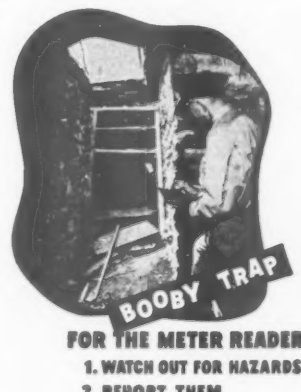
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8877-A 8½x11½



NATIONAL SAFETY COUNCIL
8882-A 8½x11½



NATIONAL SAFETY COUNCIL
9934-A 8½x11½



NATIONAL SAFETY COUNCIL
9281-A 8½x11½

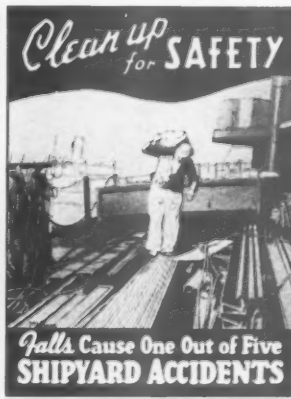
SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



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8787-A 8½x11½



NATIONAL SAFETY COUNCIL
7555-A 8½x11½



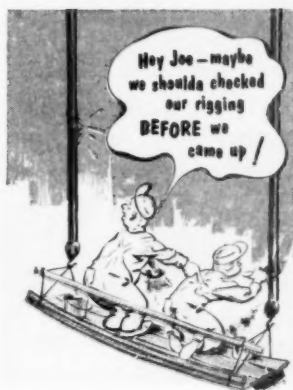
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7533-A 8½x11½



NATIONAL SAFETY COUNCIL
8228-A 8½x11½



NATIONAL SAFETY COUNCIL
7319-A 8½x11½



NATIONAL SAFETY COUNCIL
0107-B 17x23



NATIONAL SAFETY COUNCIL
8547-A 8½x11½



NATIONAL SAFETY COUNCIL
0054-A 8½x11½

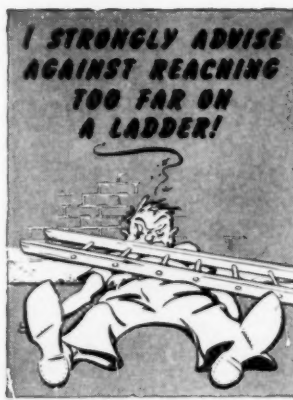
WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL
9188-A 8½x11½



NATIONAL SAFETY COUNCIL
0173-A 8½x11½

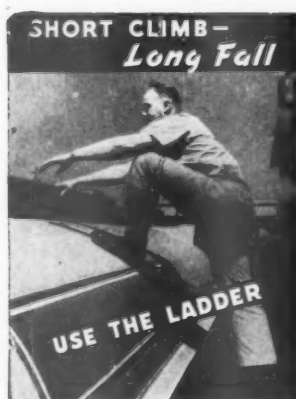


NATIONAL SAFETY COUNCIL
0025-A 8½x11½



NATIONAL SAFETY COUNCIL
9821-B 17x23

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL
9839-A 8½x11½



NATIONAL SAFETY COUNCIL
8099-A 8½x11½



NATIONAL SAFETY COUNCIL
7425-A 8½x11½



NATIONAL SAFETY COUNCIL
7643-B 17x23



NATIONAL SAFETY COUNCIL

0179-B

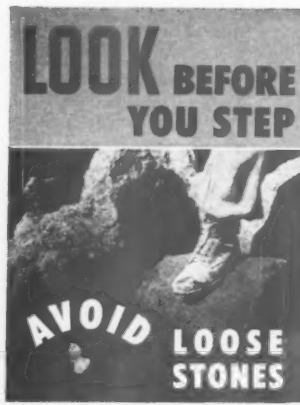
17x23



NATIONAL SAFETY COUNCIL

8764-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8393-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8948-A

8 1/2 x 11 1/2

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

0084-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8849-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8128-A

8 1/2 x 11 1/2

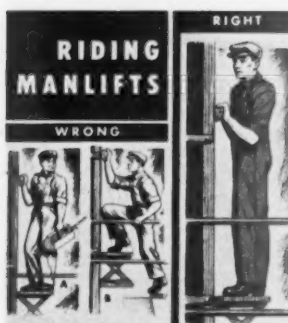


NATIONAL SAFETY COUNCIL

7757-A

8 1/2 x 11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



A. Never carry tools or other objects, since they might easily catch at floor openings.
B. Do not lean to catch a step that has passed the floor landing.

NATIONAL SAFETY COUNCIL

8356-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7531-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8323-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8548-A

8 1/2 x 11 1/2

HOUSEKEEPING

See also: p. 11; p. 36; p. 10—8747-A; p. 12—7533-A, 8787-A; p. 28—9419-A, 9520-A; p. 46—8249-A; p. 47—7773-A.



NATIONAL SAFETY COUNCIL
9832-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0166-B 17x23

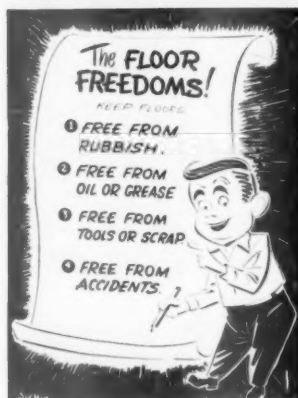


NATIONAL SAFETY COUNCIL
9523-B 17x23



NATIONAL SAFETY COUNCIL
8669-B 17x23

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL
9820-B 17x23



Now, Mac—You call that GOOD Housekeeping?

NATIONAL SAFETY COUNCIL
9993-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9752-B 17x23



NATIONAL SAFETY COUNCIL
8837-A 8 1/2x11 1/2

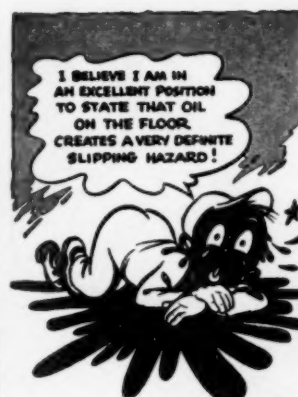
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NATIONAL SAFETY COUNCIL
0304-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0157-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8966-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8420-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9809-A 8½x11½



NATIONAL SAFETY COUNCIL
0147-B 17x23

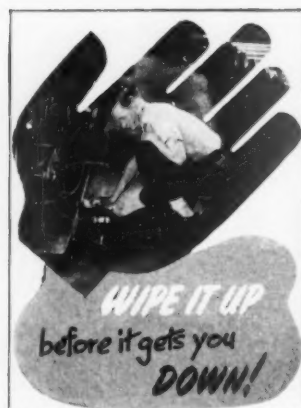


NATIONAL SAFETY COUNCIL
9781-A 8½x11½



NATIONAL SAFETY COUNCIL
0247-A 8½x11½

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
9713-A 8½x11½



NATIONAL SAFETY COUNCIL
0019-A 8½x11½



NATIONAL SAFETY COUNCIL
0302-A 8½x11½



NATIONAL SAFETY COUNCIL
7636-A 8½x11½

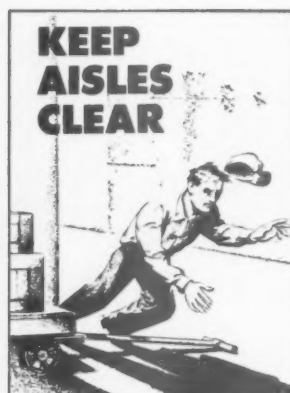
SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL
8873-B 17x23



NATIONAL SAFETY COUNCIL
8455-A 8½x11½



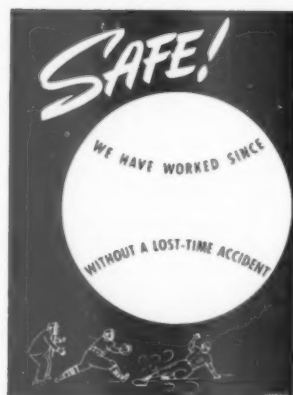
NATIONAL SAFETY COUNCIL
9791-A 8½x11½



NATIONAL SAFETY COUNCIL
9655-A 8½x11½

MISCELLANEOUS—

including horseplay, new employees, score sheets, signs, rules, off-the-job, etc.



NATIONAL SAFETY COUNCIL

0106-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0080-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8575-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

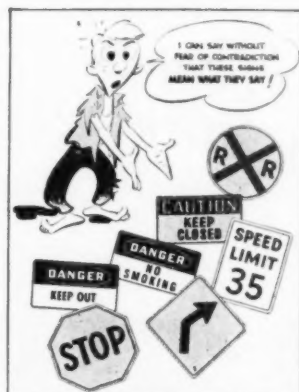
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WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL

9129-B 17x23



NATIONAL SAFETY COUNCIL

9528-B 17x23



NATIONAL SAFETY COUNCIL

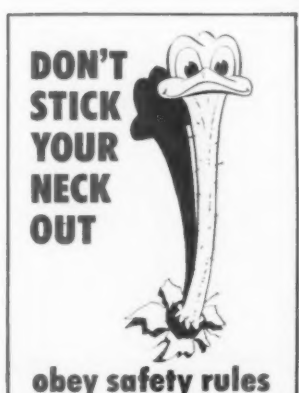
9493-B 17x23



NATIONAL SAFETY COUNCIL

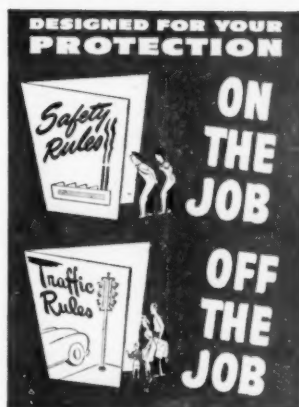
9626-A 8 1/2x11 1/2

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NATIONAL SAFETY COUNCIL

0075-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8143-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8291-A 8 1/2x11 1/2

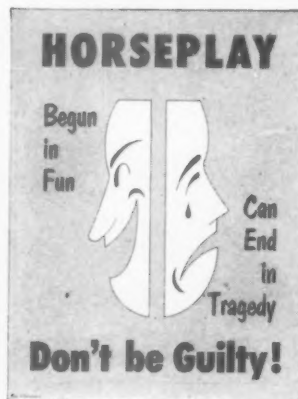


NATIONAL SAFETY COUNCIL

7034-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8569-B 17x23



NATIONAL SAFETY COUNCIL
0168-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0321-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0167-A 8 1/2x11 1/2

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
7630-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0148-A 8 1/2x11 1/2
0322-C 25x38



NATIONAL SAFETY COUNCIL
8879-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9278-B 17x23

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL
8491-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8558-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9715-B 17x23



NATIONAL SAFETY COUNCIL
8223-B 17x23

**OFF THE JOB, TOO,
IT CAN HAPPEN TO YOU**



NATIONAL SAFETY COUNCIL
9922-B 17x23



NATIONAL SAFETY COUNCIL
9852-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0008-A 8 1/2x11 1/2

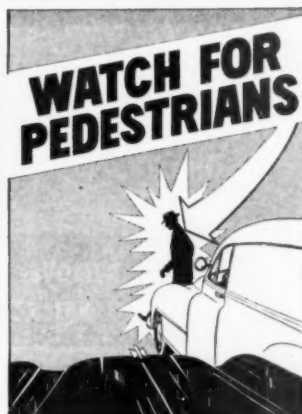


NATIONAL SAFETY COUNCIL
9800-B 17x23

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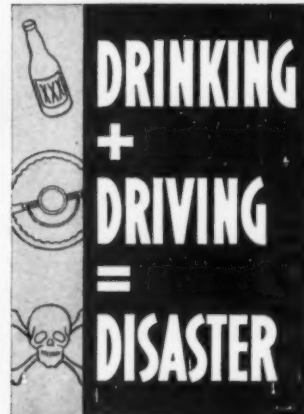
NATIONAL SAFETY COUNCIL
0159-B 17x23



NATIONAL SAFETY COUNCIL
T-0262-C 25x38
T-0271-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
T-0245-C 25x38
T-0253-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
T-0286-C 25x38
T-0287-A 8 1/2x11 1/2

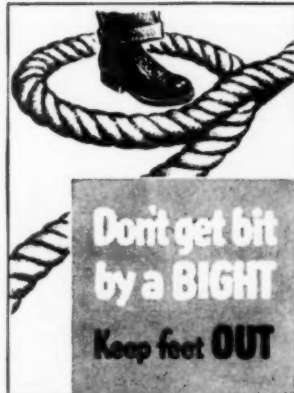
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NATIONAL SAFETY COUNCIL
9106-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9385-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9272-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0183-B 17x23



NATIONAL SAFETY COUNCIL

8444-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8814-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8355-B 17x23



NATIONAL SAFETY COUNCIL

7966-A 8 1/2x11 1/2

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

9462-A 8 1/2x11 1/2



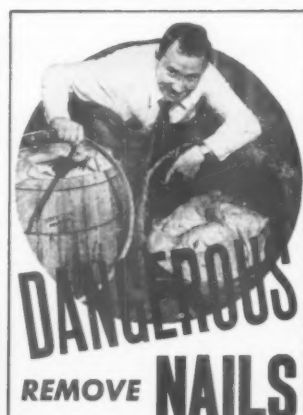
NATIONAL SAFETY COUNCIL

6310-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0011-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7949-A 8 1/2x11 1/2

SEASONAL & HOLIDAY

See also: p. 9; p. 40; p. 10—8428-B, 8945-A; p. 17—8575-A; p. 39—7501-A, 9155-A; p. 62—V-9933-B, V-0316-A; p. 63—V-0334-A.



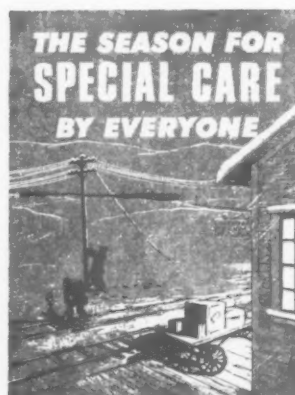
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0046-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9711-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0298-B 17x23



NATIONAL SAFETY COUNCIL

0213-B 17x23

continuing—SEASONAL & HOLIDAY



9526-B

17x23



9327-A

8 1/2 x 11 1/2



9020-A

8 1/2 x 11 1/2



9546-A
0180-C

8 1/2 x 11 1/2
25x38

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



0257-B

17x23



0265-B

17x23



8084-A

8 1/2 x 11 1/2



9373-A

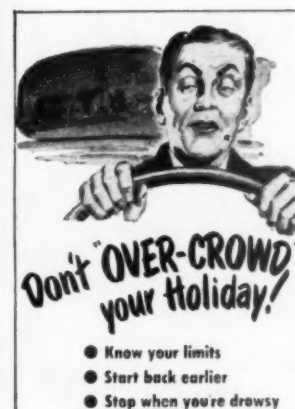
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POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



8309-B

17x23



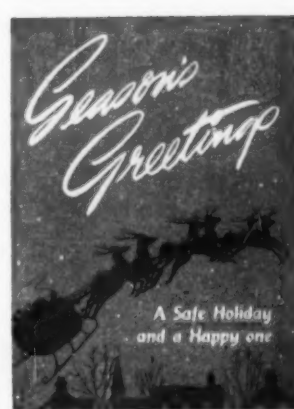
9961-B

17x23



8578-A

8 1/2 x 11 1/2

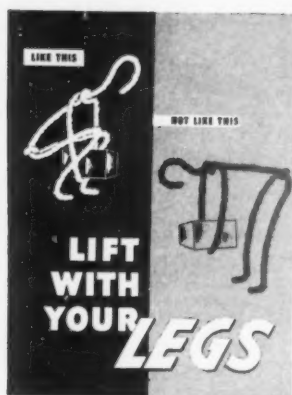


8839-A

8 1/2 x 11 1/2

MATERIALS HANDLING—manual

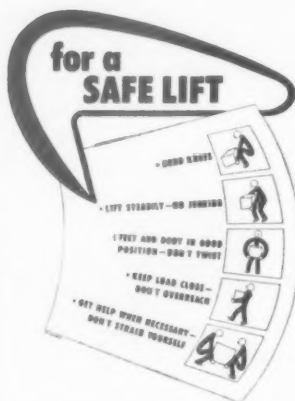
See also: p. 36—8773-A, 9210-A; p. 45—8740-A, 9360-B; p. 57—7416-A, 7463-A, 9417-A; p. 58—8036-A, 8766-A.



NATIONAL SAFETY COUNCIL

0105-B

17x23



NATIONAL SAFETY COUNCIL

9383-B

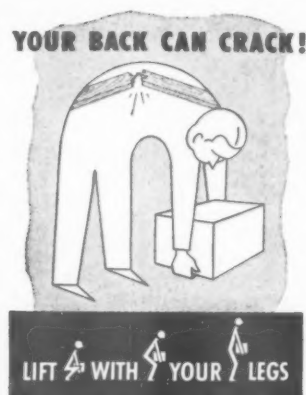
17x23



NATIONAL SAFETY COUNCIL

9923-B

17x23

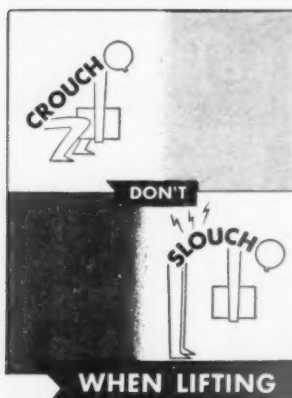


NATIONAL SAFETY COUNCIL

9972-A

8 1/2x11 1/2

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

0139-A

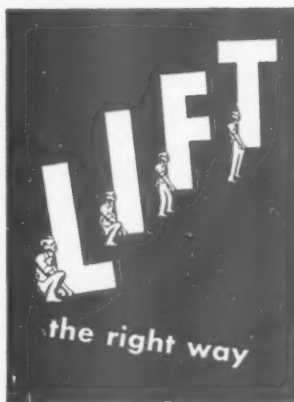
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9443-A

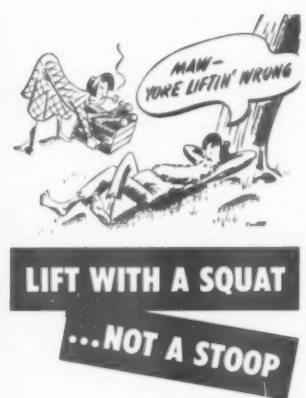
8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9498-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9232-A

8 1/2x11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

9380-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8182-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7987-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7499-A

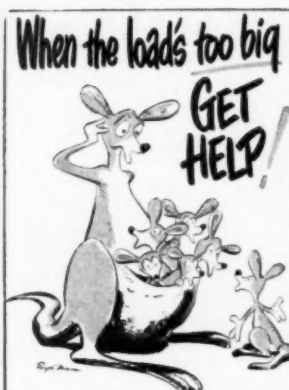
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NATIONAL SAFETY COUNCIL POSTER NO. S.S.
9896-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
8784-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
0221-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
9125-A 8 1/2x11 1/2

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
8880-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
9599-A 8 1/2x11 1/2

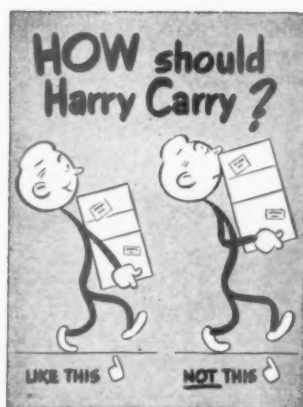


NATIONAL SAFETY COUNCIL POSTER NO. S.S.
8733-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
0274-B 17x23

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
8586-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
7185-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. S.S.
0256-B 17x23



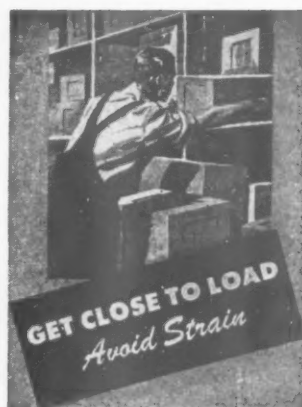
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8570-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9929-B 17x23



NATIONAL SAFETY COUNCIL
9761-A 8½x11½



NATIONAL SAFETY COUNCIL
7180-A 8½x11½



NATIONAL SAFETY COUNCIL
9015-A 8½x11½

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
8665-B 17x23



NATIONAL SAFETY COUNCIL
8794-A 8½x11½



NATIONAL SAFETY COUNCIL
7329-A 8½x11½



NATIONAL SAFETY COUNCIL
9744-A 8½x11½

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL
8793-A 8½x11½



NATIONAL SAFETY COUNCIL
7014-A 8½x11½



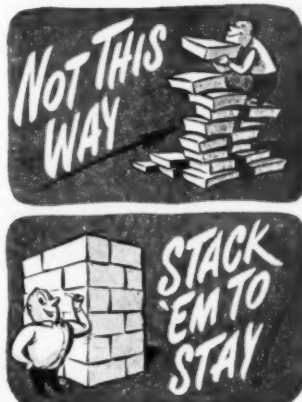
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8204-A 8½x11½



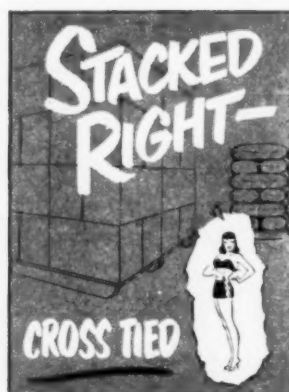
NATIONAL SAFETY COUNCIL
7291-A 8½x11½



NATIONAL SAFETY COUNCIL
0089-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8785-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9928-B 17x23



NATIONAL SAFETY COUNCIL
8490-A 8 1/2x11 1/2

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL
9481-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
7521-A 8 1/2x11 1/2

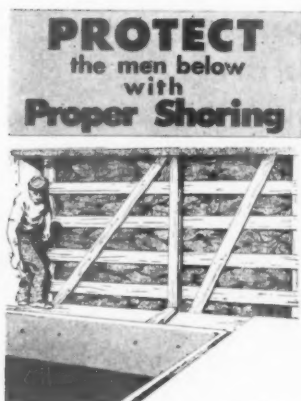


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8473-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8956-A 8 1/2x11 1/2

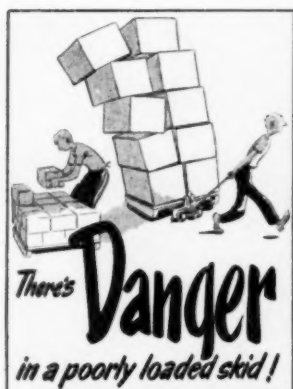
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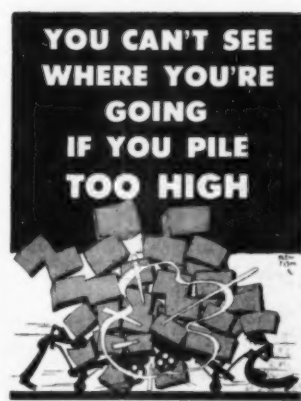
NATIONAL SAFETY COUNCIL
0282-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9925-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0065-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0035-A 8 1/2x11 1/2



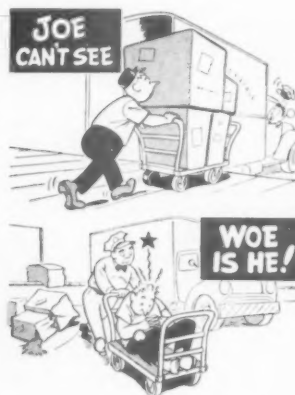
NATIONAL SAFETY COUNCIL

0223-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8543-B 17 x 23



NATIONAL SAFETY COUNCIL

9901-B 17 x 23



NATIONAL SAFETY COUNCIL

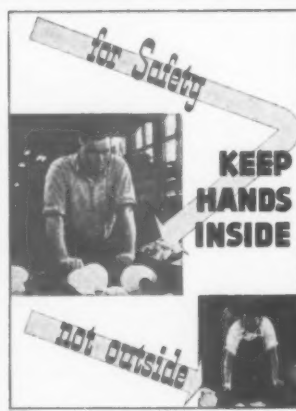
9689-B 17 x 23

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

8884-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8937-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8625-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7723-A 8 1/2 x 11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

8636-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9235-A 8 1/2 x 11 1/2



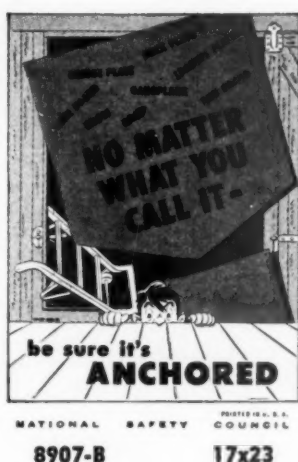
NATIONAL SAFETY COUNCIL

8070-A 8 1/2 x 11 1/2

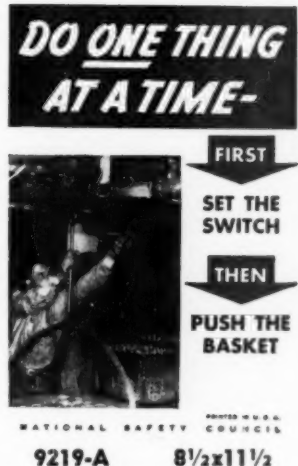


NATIONAL SAFETY COUNCIL

8820-A 8 1/2 x 11 1/2



WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS

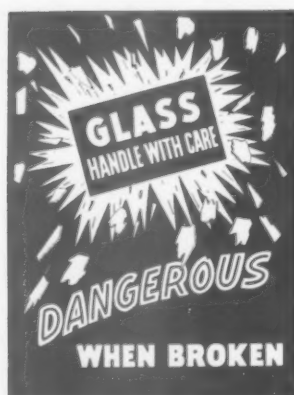


POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS





NATIONAL SAFETY COUNCIL
9520-A 8½x11½



NATIONAL SAFETY COUNCIL
9419-A 8½x11½



NATIONAL SAFETY COUNCIL
9815-A 8½x11½



NATIONAL SAFETY COUNCIL
8695-A 8½x11½

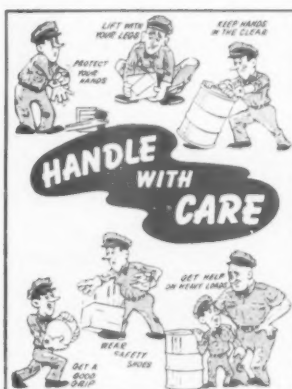
POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL
9006-A 8½x11½



NATIONAL SAFETY COUNCIL
8335-A 8½x11½

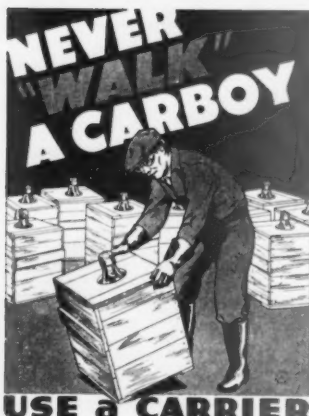


NATIONAL SAFETY COUNCIL
9517-A 8½x11½



NATIONAL SAFETY COUNCIL
7522-B 17x23

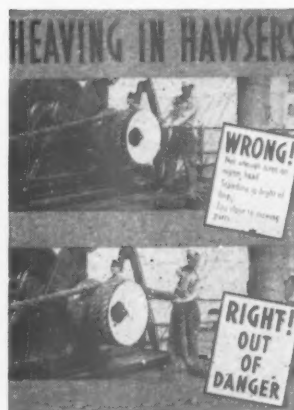
SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL
7940-A 8½x11½



NATIONAL SAFETY COUNCIL
8550-A 8½x11½



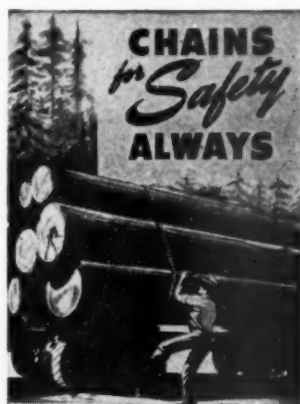
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6604-A 8½x11½



NATIONAL SAFETY COUNCIL
9352-A 8½x11½



NATIONAL SAFETY COUNCIL
7536-A 8½x11½



NATIONAL SAFETY COUNCIL
7502-B 17x23



NATIONAL SAFETY COUNCIL
6241-A 8½x11½



NATIONAL SAFETY COUNCIL
0236-A 8½x11½

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL
7537-B 17x23



NATIONAL SAFETY COUNCIL
0278-A 8½x11½



NATIONAL SAFETY COUNCIL
0034-A 8½x11½

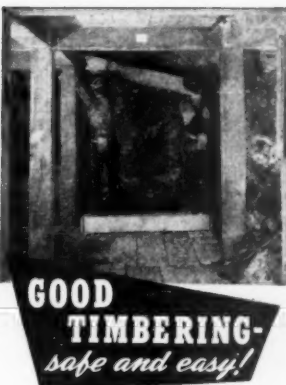


NATIONAL SAFETY COUNCIL
0126-A 8½x11½

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL
9808-A 8½x11½



NATIONAL SAFETY COUNCIL
8874-A 8½x11½



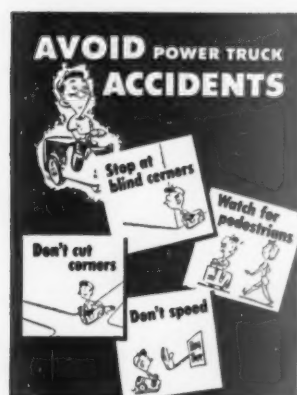
NATIONAL SAFETY COUNCIL
8944-A 8½x11½



NATIONAL SAFETY COUNCIL
7877-A 8½x11½

MATERIALS HANDLING—mechanical

See also: p. 14; p. 13—7643-B; p. 29—7537-B; p. 52—8076-A; p. 53—8967-A; p. 57—9107-A; p. 60—0083-A, 7644-B.



NATIONAL SAFETY COUNCIL

8858-B

17x23



NATIONAL SAFETY COUNCIL

0272-B

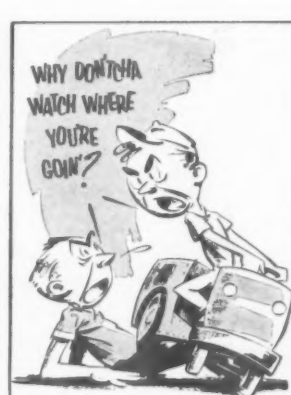
17x23



NATIONAL SAFETY COUNCIL

8850-B

17x23



NATIONAL SAFETY COUNCIL

0249-B

17x23

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

3158-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8857-A

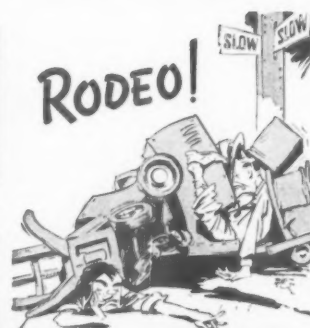
8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9706-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9661-A

8 1/2x11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

8768-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9400-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9270-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9518-A

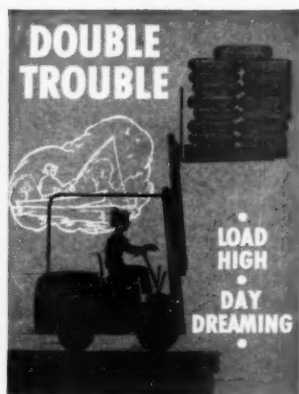
8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9430-B

17x23



NATIONAL SAFETY COUNCIL

0119-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7549-B

17x23

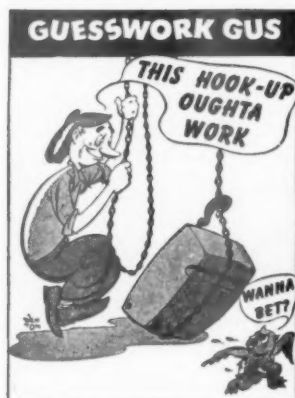


NATIONAL SAFETY COUNCIL

0209-A

8 1/2 x 11 1/2

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL

8649-A

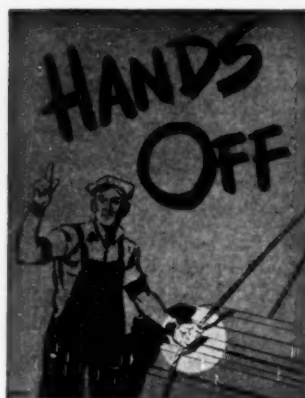
8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8646-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7320-A

8 1/2 x 11 1/2

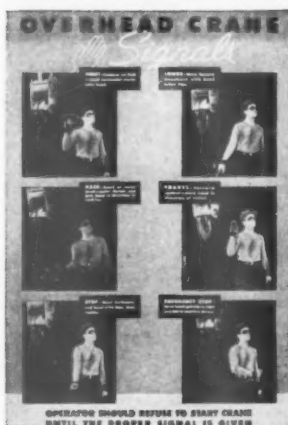


NATIONAL SAFETY COUNCIL

7458-A

8 1/2 x 11 1/2

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL

7438-B

17x23



NATIONAL SAFETY COUNCIL

8979-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0078-B

17x23



NATIONAL SAFETY COUNCIL

9471-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9693-A 8½x11½



if it's in the AIR -
IT'S DANGEROUS!

NATIONAL SAFETY COUNCIL

9208-A 8½x11½



**Keep out from under
SUSPENDED LOADS!**

NATIONAL SAFETY COUNCIL

8881-A 8½x11½



NATIONAL SAFETY COUNCIL

0314-B 17x23

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

7367-A 8½x11½



NATIONAL SAFETY COUNCIL

7119-A 8½x11½



NATIONAL SAFETY COUNCIL

9213-A 8½x11½



NATIONAL SAFETY COUNCIL

8424-A 8½x11½

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

8045-A 8½x11½



NATIONAL SAFETY COUNCIL

7596-A 8½x11½



NATIONAL SAFETY COUNCIL

8043-A 8½x11½



NATIONAL SAFETY COUNCIL

7642-A 8½x11½

FOUR-COLOR POSTERS—all subjects

Accidents strike

Quick as a Wink!



Take time to THINK

NATIONAL SAFETY COUNCIL

0081-A

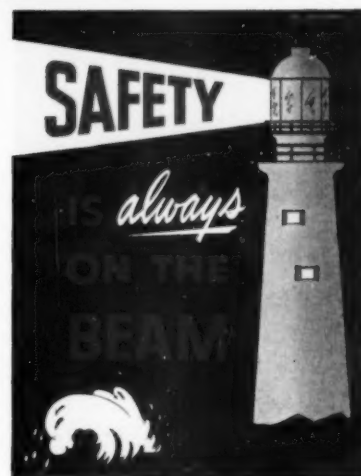
8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0067-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8840-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9472-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0114-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9902-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0146-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8630-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9888-A

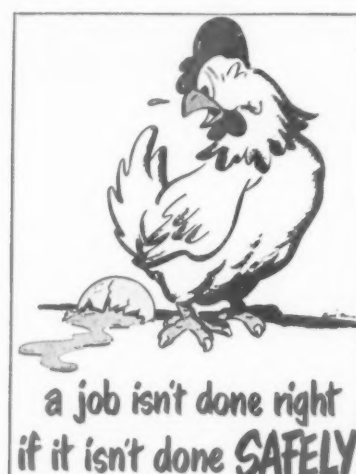
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0018-A 8 1/2x11 1/2



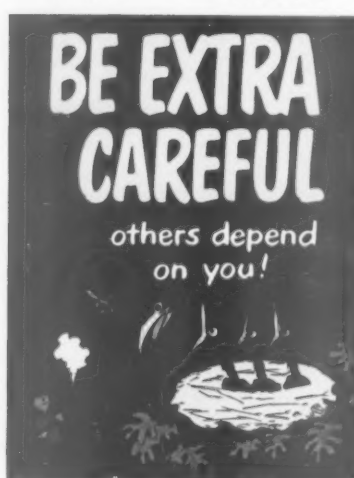
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0219-A 8 1/2x11 1/2



8466-A 8 1/2x11 1/2



9286-A 8 1/2x11 1/2



9833-A 8 1/2x11 1/2



9098-A 8 1/2x11 1/2



8934-A 8 1/2x11 1/2



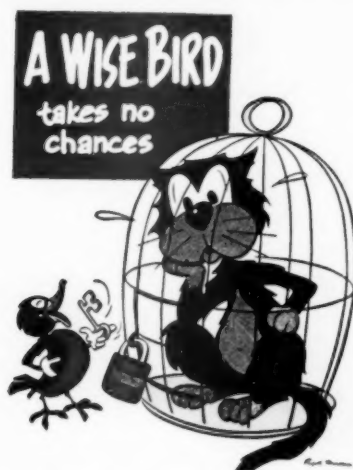
9569-A 8 1/2x11 1/2

continuing—**FOUR-COLOR POSTERS**—all subjects



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8612-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9367-A 8 1/2 x 11 1/2



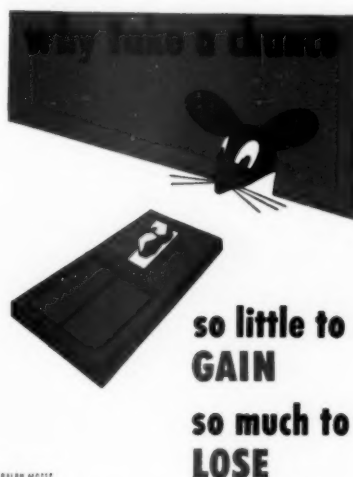
NATIONAL SAFETY COUNCIL

8489-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

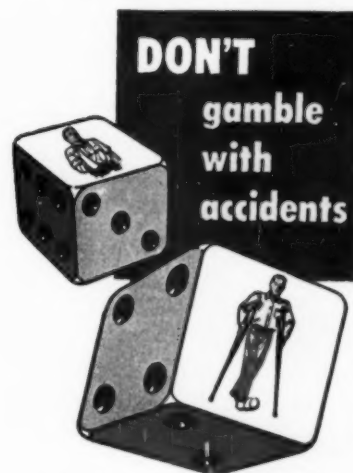
8485-A 8 1/2 x 11 1/2



RALPH MOTTE

NATIONAL SAFETY COUNCIL

8299-A 8 1/2 x 11 1/2



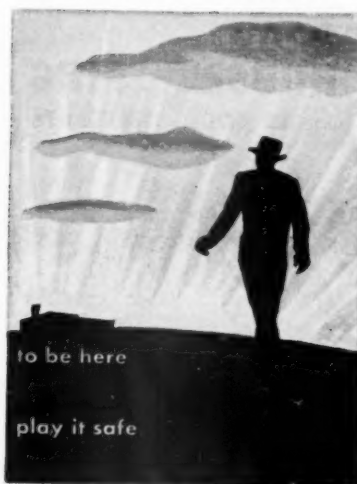
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8976-A 8 1/2 x 11 1/2



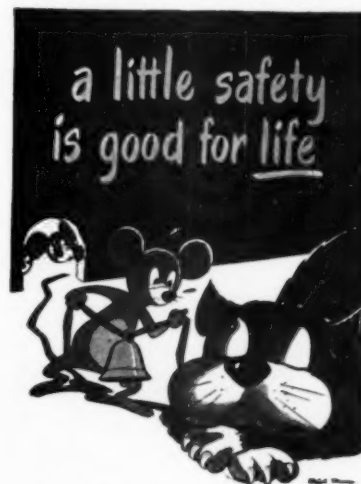
NATIONAL SAFETY COUNCIL

9870-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9541-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9466-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL
9210-A 8 1/2x11 1/2



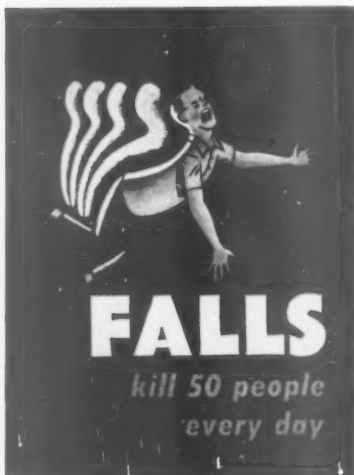
NATIONAL SAFETY COUNCIL
8773-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0086-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
7553-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9887-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
7353-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0220-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9497-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8207-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7587-A

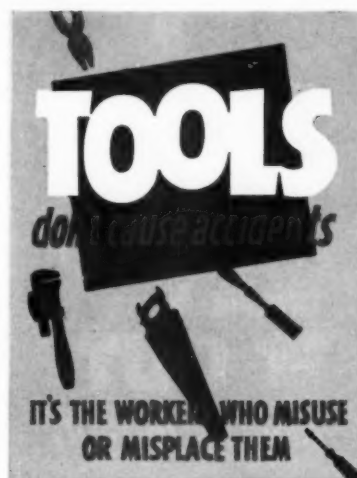
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NATIONAL SAFETY COUNCIL

9695-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8567-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8469-A

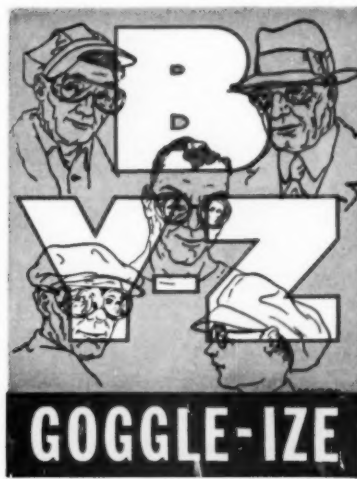
8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8457-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9180-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8831-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0057-A

8 1/2 x 11 1/2



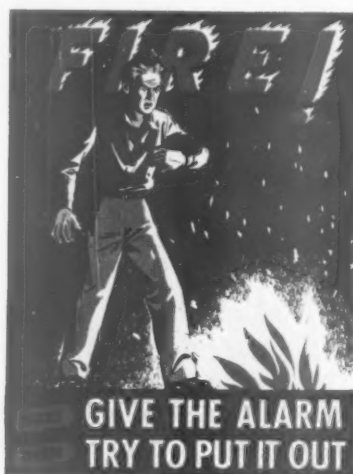
NATIONAL SAFETY COUNCIL

0123-A

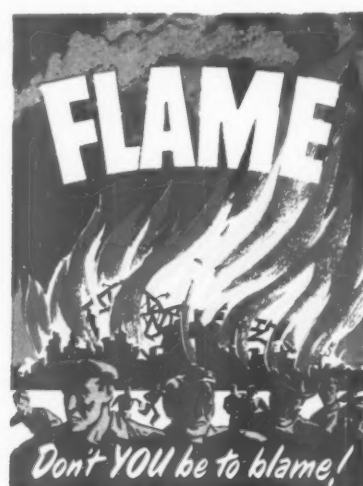
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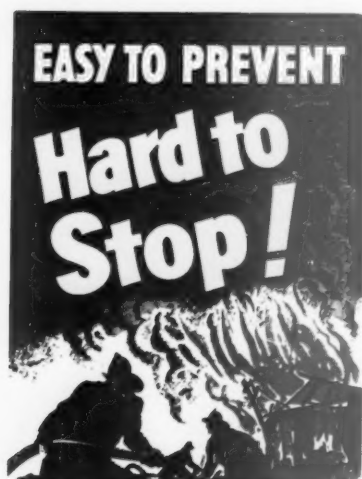
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9889-A 8 1/2x11 1/2



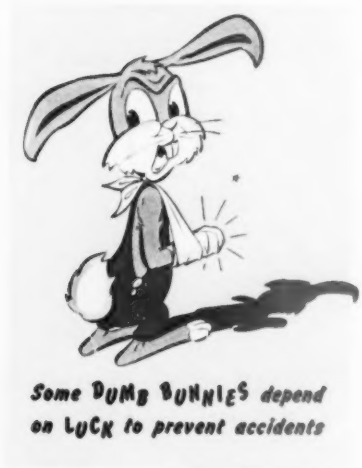
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NATIONAL SAFETY COUNCIL

8886-A

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9167-A

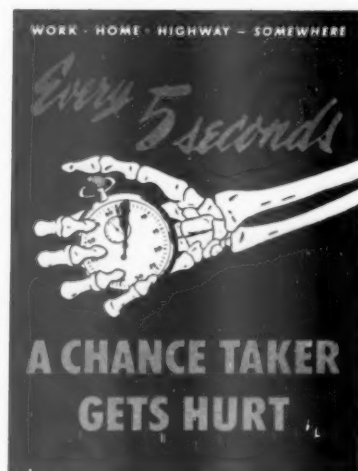
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NATIONAL SAFETY COUNCIL

9783-A

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NATIONAL SAFETY COUNCIL

9866-A

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NATIONAL SAFETY COUNCIL

9871-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9155-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7501-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8754-A

8 1/2 x 11 1/2

don't let
an accident
tag you

OUT!



NATIONAL SAFETY COUNCIL

8995-A 8 1/2 x 11 1/2

POOR JUDGMENT
results in
accidents



NATIONAL SAFETY COUNCIL

9268-A 8 1/2 x 11 1/2

WARNING
ACCIDENTS
HAVE NO
CLOSED SEASON



NATIONAL SAFETY COUNCIL

9339-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9070-A 8 1/2 x 11 1/2

in any language—

SAFETY



it's important!

NATIONAL SAFETY COUNCIL

8925-A 8 1/2 x 11 1/2

PEDESTRIANS



WAIT
FOR THE
GREEN

NATIONAL SAFETY COUNCIL

T-0053-B 17x23



NATIONAL SAFETY COUNCIL

V-8652-A 8 1/2 x 11 1/2

WINNERS!



HIGH CARDS IN PROFESSIONAL SAFE DRIVING

NATIONAL SAFETY COUNCIL

V-9983-A 8 1/2 x 11 1/2

RAIL CROSSING

STOP

SPEED LIMIT 35

SIGNS
of LIFE
NEED THEM!

NATIONAL SAFETY COUNCIL

V-9799-A 8 1/2 x 11 1/2

CLOTHING & PERSONAL PROTECTIVE EQUIPMENT

See also: p. 28—8695-A; p. 58—7401-B, 7747-A; p. 60—W.C. 17.



NATIONAL SAFETY COUNCIL

9812-B

17x23



NATIONAL SAFETY COUNCIL

0068-A

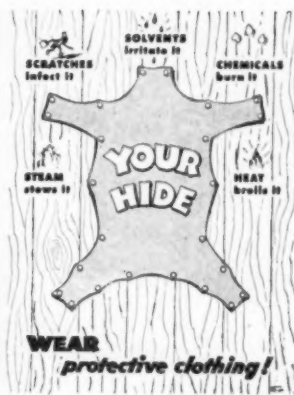
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0292-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9157-A

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NATIONAL SAFETY COUNCIL

8816-A

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NATIONAL SAFETY COUNCIL

9698-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0038-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7623-A

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9178-A

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NATIONAL SAFETY COUNCIL

0187-B

17x23



NATIONAL SAFETY COUNCIL

8743-A

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NATIONAL SAFETY COUNCIL

9649-A

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7467-A 8 1/2x11 1/2



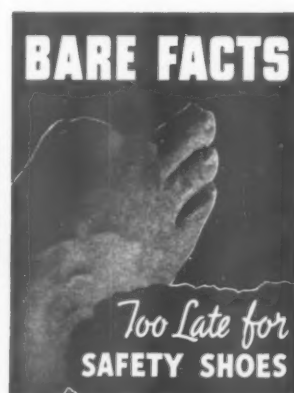
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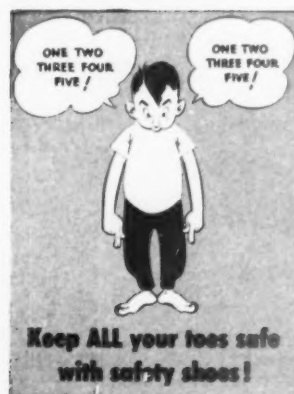
8440-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9304-A 8 1/2x11 1/2

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NATIONAL SAFETY COUNCIL

8703-B 17x23



NATIONAL SAFETY COUNCIL

0281-B 17x23



NATIONAL SAFETY COUNCIL

8922-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9128-A 8 1/2x11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



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8555-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9979-A 8 1/2x11 1/2



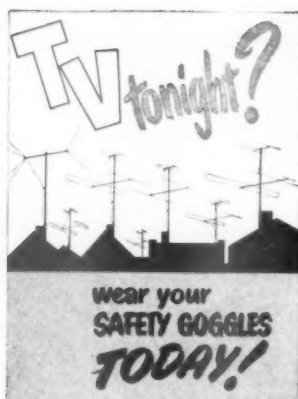
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8053-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0216-B

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NATIONAL SAFETY COUNCIL

9461-B

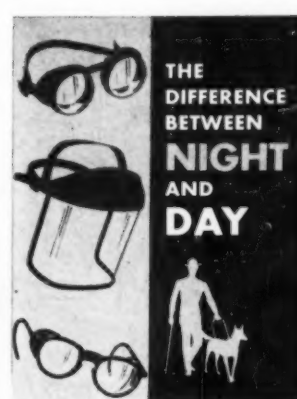
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NATIONAL SAFETY COUNCIL

9935-B

17x23



NATIONAL SAFETY COUNCIL

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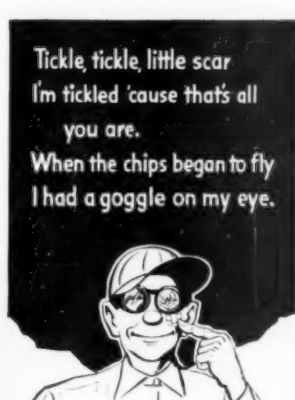
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NATIONAL SAFETY COUNCIL

0040-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9560-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9973-A

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NATIONAL SAFETY COUNCIL

0313-A

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NATIONAL SAFETY COUNCIL

0026-A

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NATIONAL SAFETY COUNCIL

7538-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7203-A

8 1/2x11 1/2



Men who use their heads
ALWAYS PROTECT THEM!

NATIONAL SAFETY COUNCIL

0163-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9572-B

17x23



NATIONAL SAFETY COUNCIL

0094-B

17x23

THREE MEN



WEARING



TWO HARD HATS

NATIONAL SAFETY COUNCIL

0064-A

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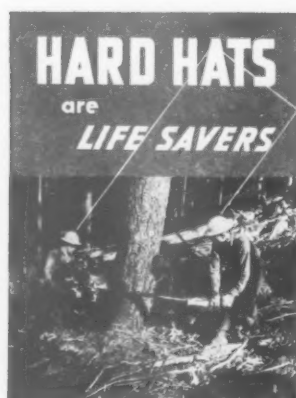
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9229-A

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NATIONAL SAFETY COUNCIL

8841-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7893-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9251-A

8 1/2x11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION

HEAD PROTECTION

for Women Workers



If you work around machinery, wear a stiff, peaked, high-crowned cap. Keep your hair ALL tucked under it.

For general work—NOT near machinery or moving belts—wear a soft cap, turban or bandanna to keep your hair and scalp clean.



If you need protection against flying sparks or falling objects, use a hard safety hat.

Use safety goggles, helmets or face shields as the job may require. Your supervisor will advise you.



NATIONAL SAFETY COUNCIL

7581-A

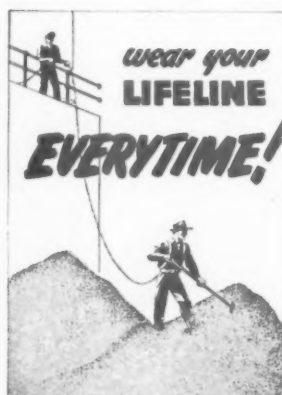
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8855-A

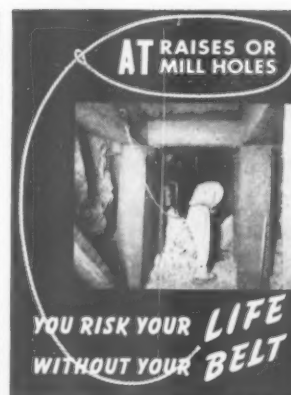
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NATIONAL SAFETY COUNCIL

9003-A

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9522-A

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NATIONAL SAFETY COUNCIL

0150-A 8 1/2x11 1/2



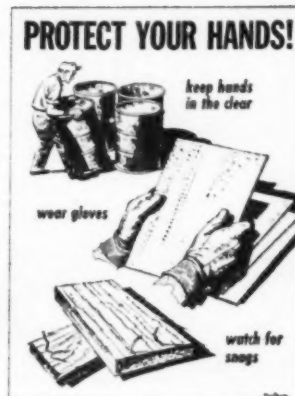
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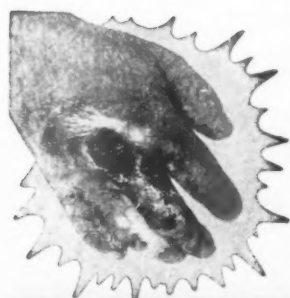
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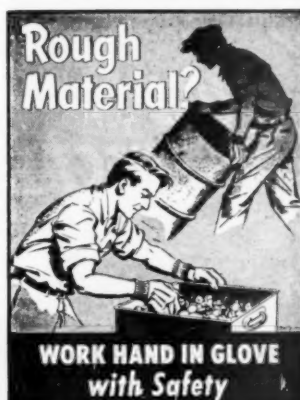
9360-B 17x23

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NATIONAL SAFETY COUNCIL

8740-A 8 1/2x11 1/2



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8450-A 8 1/2x11 1/2



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9860-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9740-A 8 1/2x11 1/2

FIRE & EXPLOSION

See also: p. 38; p. 44—9251-A; p. 58—7655-A, 7763-A, 8242-B.



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0036-B 17x23



NATIONAL SAFETY COUNCIL
0142-B 17x23



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0122-A 8 1/2x11 1/2



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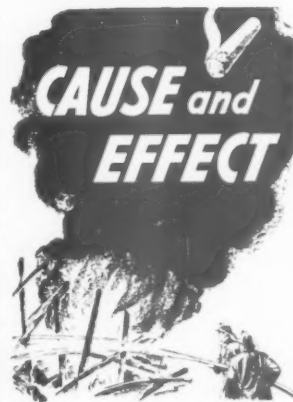
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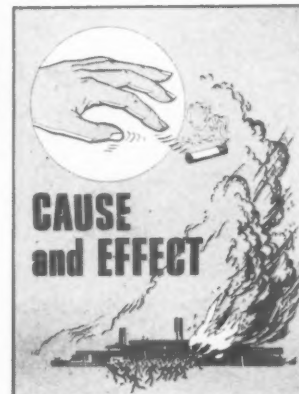
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9700-B 17x23



NATIONAL SAFETY COUNCIL
9995-B 17x23



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0259-B 17x23



NATIONAL SAFETY COUNCIL
0030-A 8 1/2x11 1/2
0260-C 25x38



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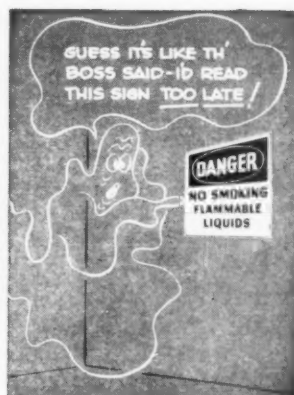


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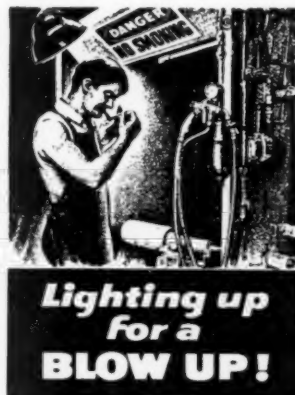
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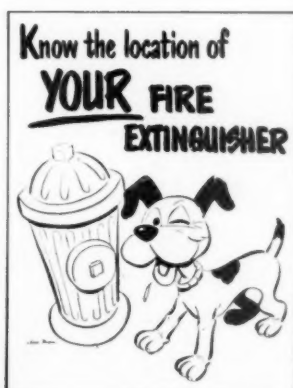
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IT'S EASIER TO PREVENT A FIRE THAN TO PUT ONE OUT!

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0242-A 8 1/2x11 1/2



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W.C. 6 17x23

FIRE EXTINGUISHER FACTS				
TYPE OF EXTINGUISHER	FOR WHAT KIND OF FIRE	CONTENTS	HOW TO USE IT	DANGER AND DURATION
WATER	CLASS A	Water solution of sodium bicarbonate and other chemicals.	Turn on. Aim at base of fire. Sweep side to side.	Use on Class A fires only. Not effective on Class B, C, or D fires.
FOAM	CLASS A	Water solution of sodium bicarbonate and other chemicals.	Turn on. Aim at base of fire. Sweep side to side.	Use on Class A fires only. Not effective on Class B, C, or D fires.
CO2	CLASS B	Carbon dioxide.	Turn on. Aim at base of fire. Sweep side to side.	Use on Class B fires only. Not effective on Class A, C, or D fires.
DRY CHEMICAL	CLASS A, B, C	Water solution of sodium bicarbonate and other chemicals.	Turn on. Aim at base of fire. Sweep side to side.	Use on Class A, B, and C fires. Not effective on Class D fires.
WET CHEMICAL	CLASS D	Water solution of sodium bicarbonate and other chemicals.	Turn on. Aim at base of fire. Sweep side to side.	Use on Class D fires only. Not effective on Class A, B, or C fires.

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8704-A 8 1/2x11 1/2



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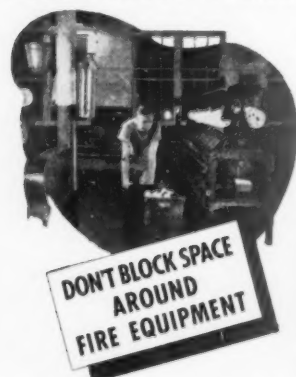


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KEEP AISLES CLEAR!



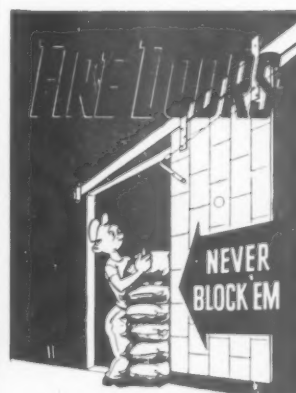
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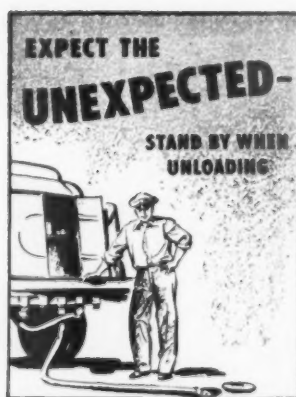
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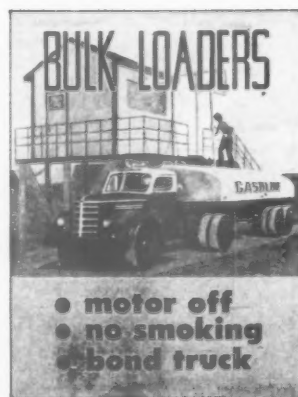
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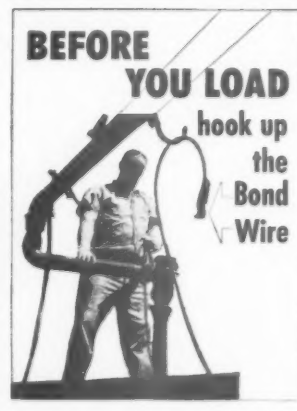
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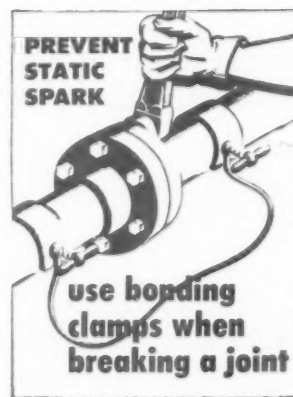
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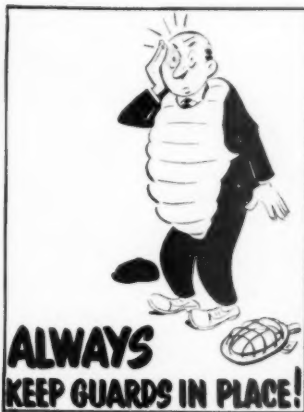
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MACHINERY

See also: p. 11; p. 16—0019-A, 9713-A, 9781-A; p. 37—7587-A; p. 41—7623-A, 8743-A, 9649-A; p. 54—7732-A, 9813-A.



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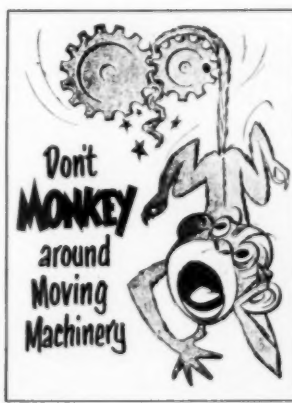
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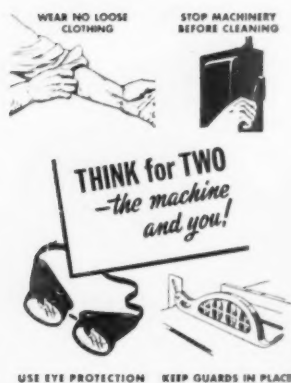
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0069-A 8 1/2x11 1/2



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8324-A 8 1/2x11 1/2



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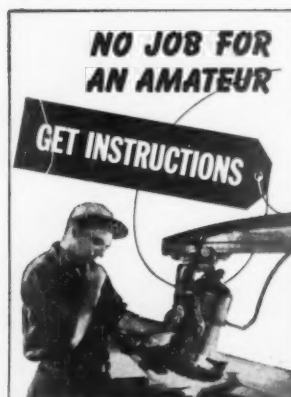


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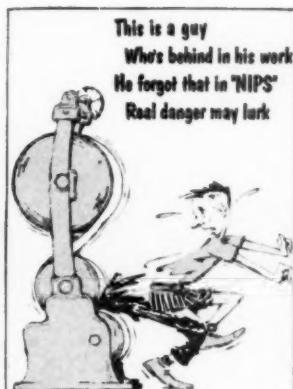
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9011-A

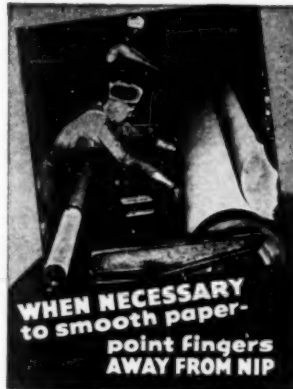
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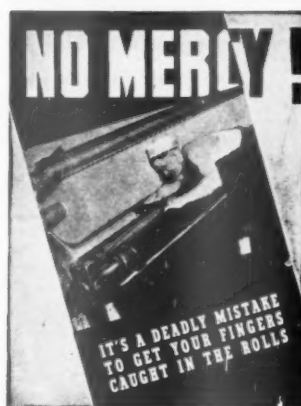


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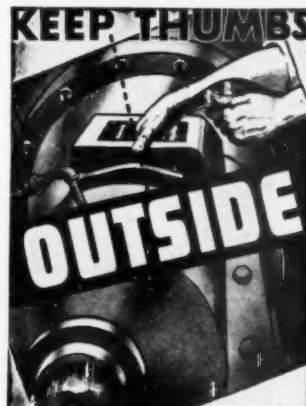
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8206-A

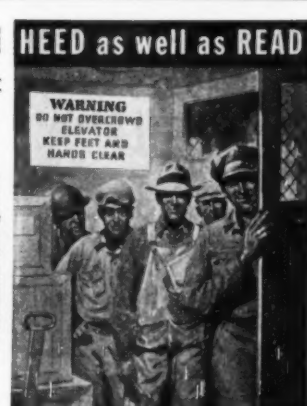
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NATIONAL SAFETY COUNCIL

0222-A

8 1/2 x 11 1/2



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7276-A

8 1/2 x 11 1/2

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NATIONAL SAFETY COUNCIL

9138-A

8 1/2 x 11 1/2



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NATIONAL SAFETY COUNCIL

0044-A

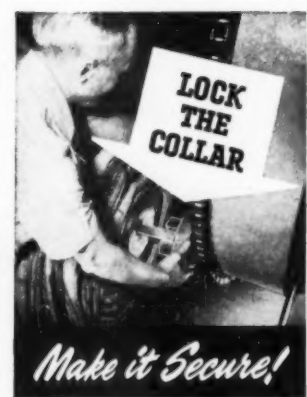
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NATIONAL SAFETY COUNCIL

9033-A

8 1/2 x 11 1/2



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NATIONAL SAFETY COUNCIL

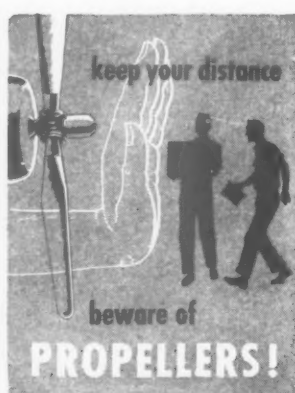
8946-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9432-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0010-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9633-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9433-A 8 1/2 x 11 1/2

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NATIONAL SAFETY COUNCIL

9196-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7597-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7599-B 17 x 23



NATIONAL SAFETY COUNCIL

9406-A 8 1/2 x 11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

9976-A 8 1/2 x 11 1/2



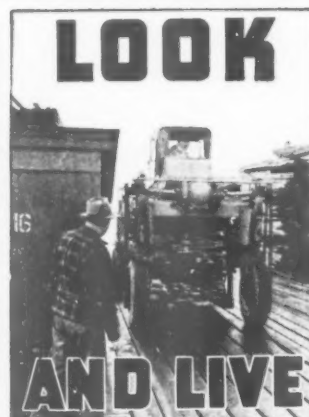
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9806-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9975-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8076-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL
0145-A 8½x11½



NATIONAL SAFETY COUNCIL
8792-A 8½x11½

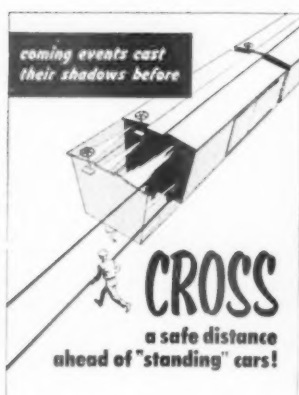


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9025-A 8½x11½



NATIONAL SAFETY COUNCIL
8255-A 8½x11½

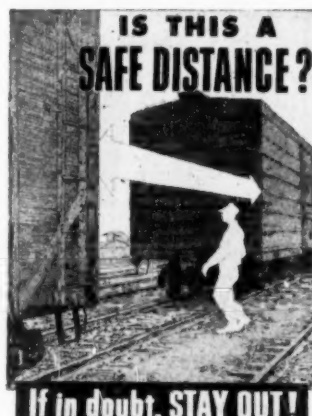
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NATIONAL SAFETY COUNCIL
0072-B 17x23



NATIONAL SAFETY COUNCIL
9550-B 17x23



NATIONAL SAFETY COUNCIL
0273-B 17x23



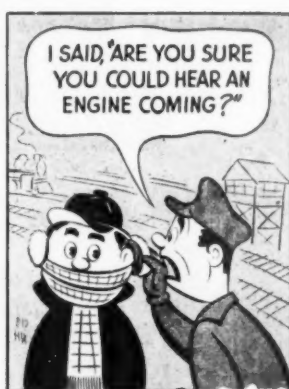
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8160-B 17x23

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Be safe...Be sure



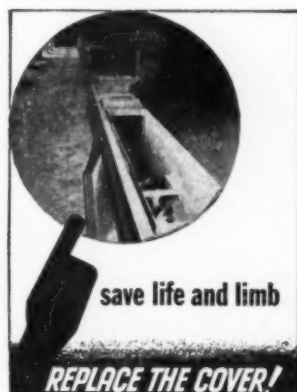
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0158-B 17x23



NATIONAL SAFETY COUNCIL
0056-B 17x23



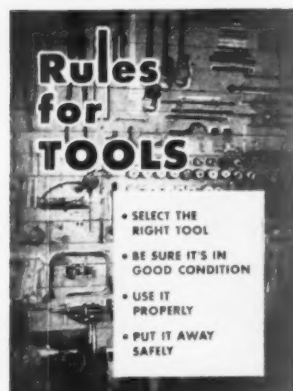
NATIONAL SAFETY COUNCIL
0103-B 17x23



8967-A 8½x11½

TOOLS—hand & powered

See also: p. 37—8469-A, 8567-A, 9695-A.



NATIONAL SAFETY COUNCIL

9886-A 8 1/2x11 1/2



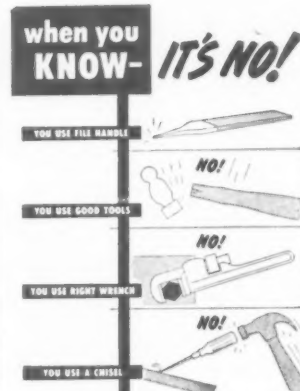
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0269-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

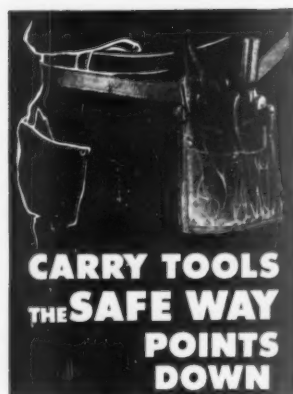
9040-B 17x23



NATIONAL SAFETY COUNCIL

9136-B 17x23

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NATIONAL SAFETY COUNCIL

9897-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9302-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9836-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0140-A 8 1/2x11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

9825-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7732-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

8464-A 8 1/2x11 1/2

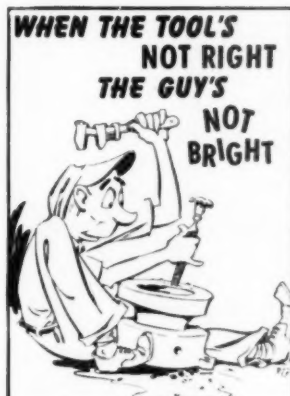


NATIONAL SAFETY COUNCIL

9813-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9145-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
8838-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9714-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0212-A 8 1/2x11 1/2

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NATIONAL SAFETY COUNCIL
8668-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9434-A 8 1/2x11 1/2



8913-A 8 1/2x11 1/2



9035-B 17x23

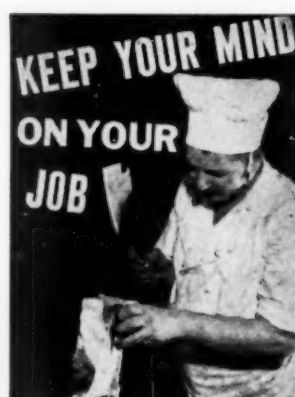
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NATIONAL SAFETY COUNCIL
7324-A 8 1/2x11 1/2



7947-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9482-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9301-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9861-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9859-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9396-A

8 1/2 x 11 1/2

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NATIONAL SAFETY COUNCIL

9124-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8819-A

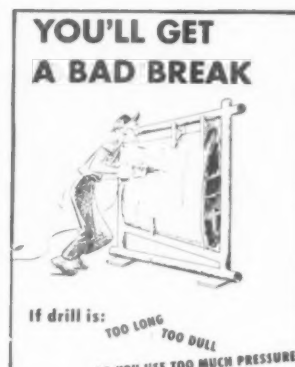
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NATIONAL SAFETY COUNCIL

0233-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

0082-A

8 1/2 x 11 1/2

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NATIONAL SAFETY COUNCIL

7595-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7374-A

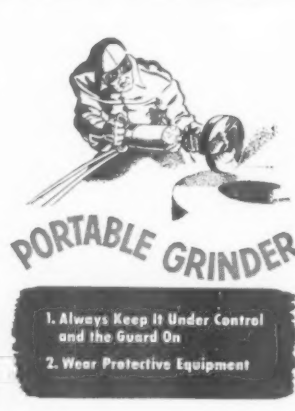
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NATIONAL SAFETY COUNCIL

9344-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

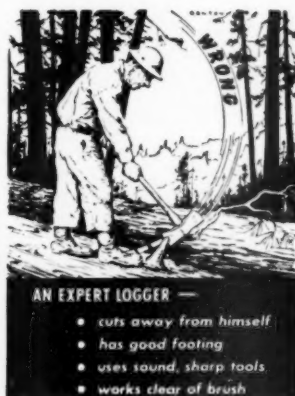
9368-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7463-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9557-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9416-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8456-A 8 1/2 x 11 1/2

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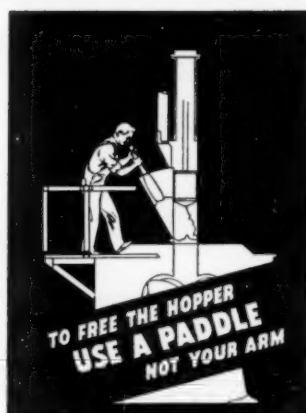
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9107-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9417-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8425-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7736-A 8 1/2 x 11 1/2

CHEMICALS & GASES

See also: p. 27—9585-A; p. 28—7522-B, 7940-A; p. 37—8469-A.



NATIONAL SAFETY COUNCIL

8701-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8667-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7450-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7416-A 8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

8483-A 8 1/2x11 1/2

COVER UP



NATIONAL SAFETY COUNCIL

7747-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

0074-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7401-B 17x23

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NATIONAL SAFETY COUNCIL

0300-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7370-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

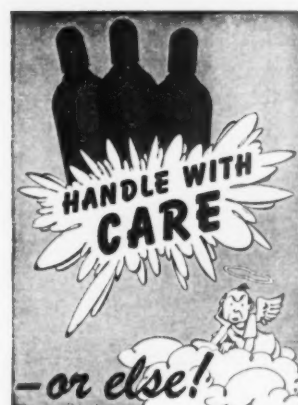
7763-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

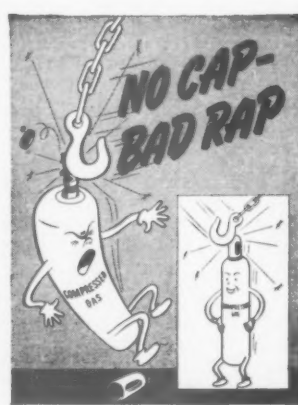
8242-B 17x23

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NATIONAL SAFETY COUNCIL

8766-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

9097-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

7655-A 8 1/2x11 1/2

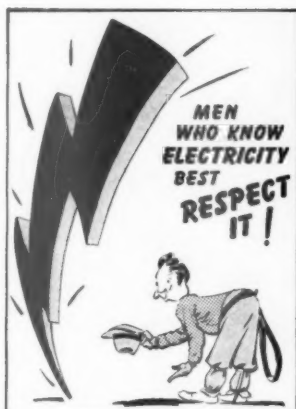


NATIONAL SAFETY COUNCIL

8036-A 8 1/2x11 1/2

ELECTRICITY

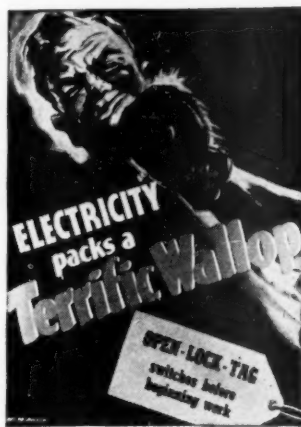
See also: p. 56.



NATIONAL SAFETY COUNCIL

9524-A

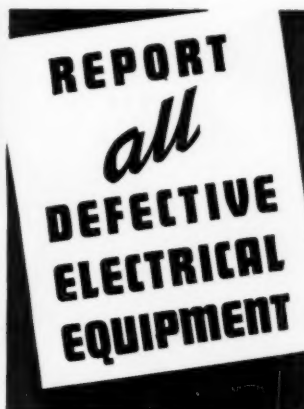
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NATIONAL SAFETY COUNCIL

7088-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

7420-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9539-A

8 1/2 x 11 1/2

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NATIONAL SAFETY COUNCIL

9348-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9558-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

9346-B

17 x 23



NATIONAL SAFETY COUNCIL

0095-A

8 1/2 x 11 1/2

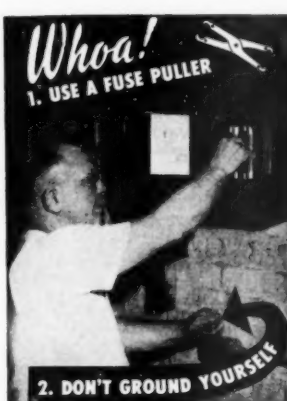
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9081-A

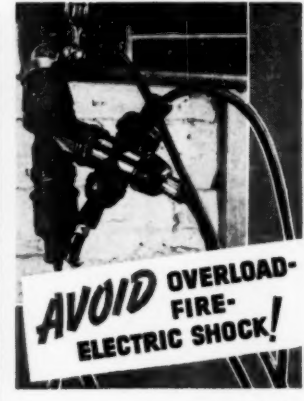
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9181-A

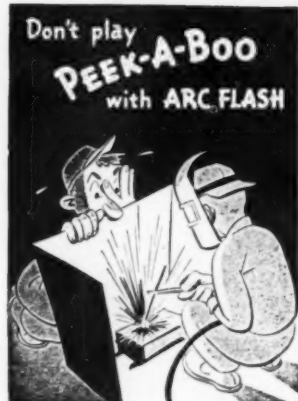
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NATIONAL SAFETY COUNCIL

8914-A

8 1/2 x 11 1/2



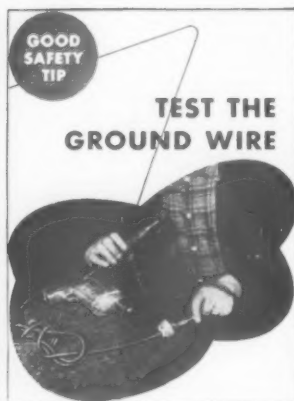
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9366-A

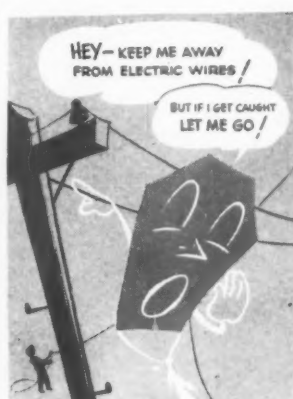
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NATIONAL SAFETY COUNCIL
8964-B 17x23



NATIONAL SAFETY COUNCIL
9164-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
0117-A 8 1/2x11 1/2

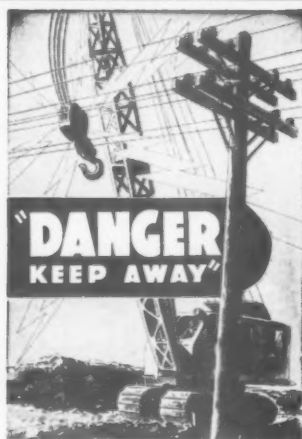


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9274-A 8 1/2x11 1/2

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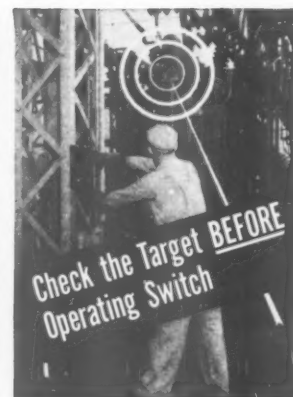
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7644-B 17x23



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9877-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9653-A 8 1/2x11 1/2

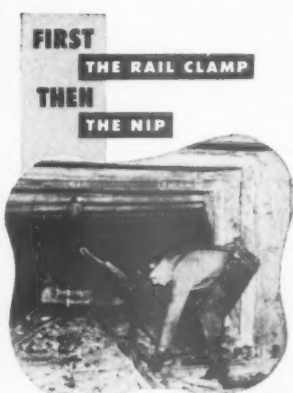
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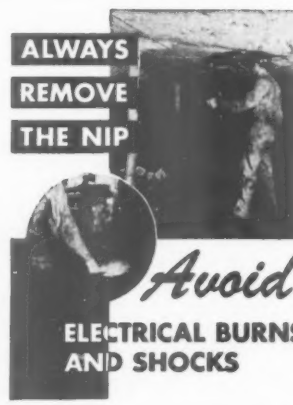
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W.C. 17 17x23



NATIONAL SAFETY COUNCIL
W.C. 15 17x23



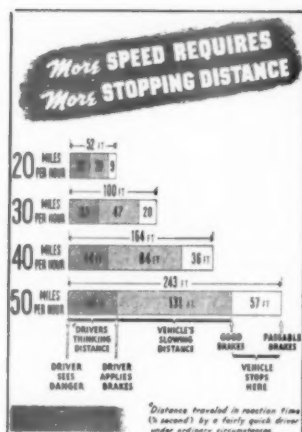
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9162-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
9620-A 8 1/2x11 1/2

MOTOR TRANSPORTATION—trucks, buses, taxicabs

See also: p. 19; p. 40; p. 52; p. 11—0042-A; p. 14—8323-A; p. 21—0180-C, 9546-A, 9961-B; p. 32—7596-A; p. 48—8919-A, 9280-A; p. 58—0074-A, 0300-A.



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V-8058-B 17x23

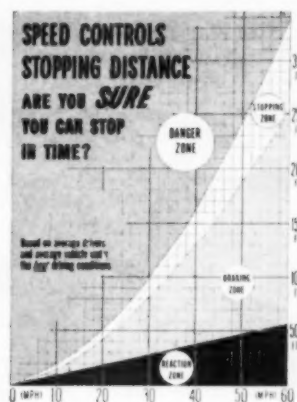


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V-8404-B 17x23

**AT ANY SPEED
FAULTY BRAKES INCREASE
STOPPING DISTANCE OVER
40%**



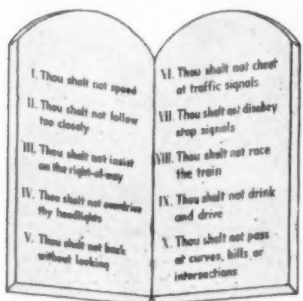
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V-9716-A 8 1/2x11 1/2



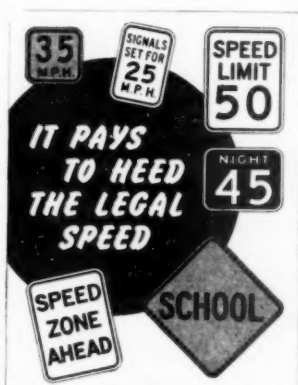
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V-0113-B 17x23

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These Commandments KEEP YOU OUT OF TRAFFIC TROUBLE



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V-0235-B 17x23



NATIONAL SAFETY COUNCIL
V-0237-B 17x23



NATIONAL SAFETY COUNCIL
V-0118-B 17x23



NATIONAL SAFETY COUNCIL
V-9766-A 8 1/2x11 1/2

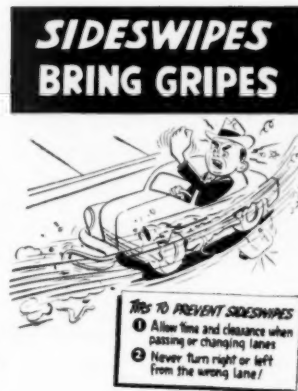
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V-9997-B 17x23



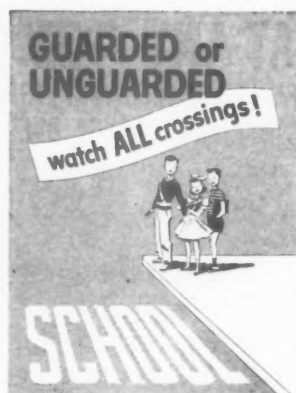
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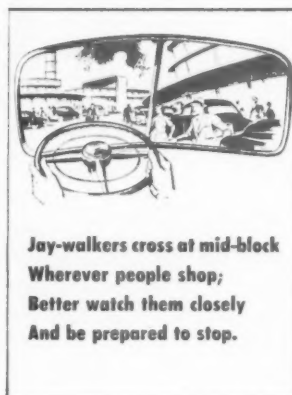
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NATIONAL SAFETY COUNCIL
V-9669-B 17x23



NATIONAL SAFETY COUNCIL
V-8801-A 8 1/2x11 1/2

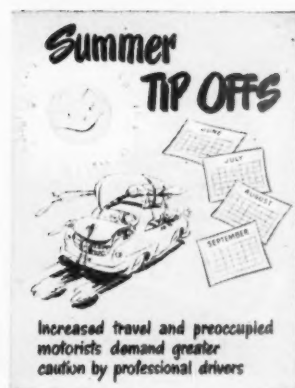


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V-9717-B 17x23



NATIONAL SAFETY COUNCIL
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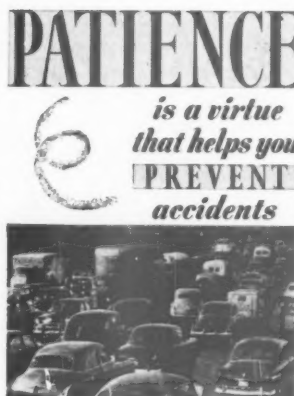
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V-9933-B 17x23



NATIONAL SAFETY COUNCIL
V-0316-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-0218-B 17x23



NATIONAL SAFETY COUNCIL
V-8010-B 17x23

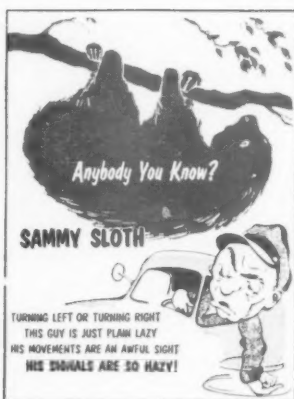
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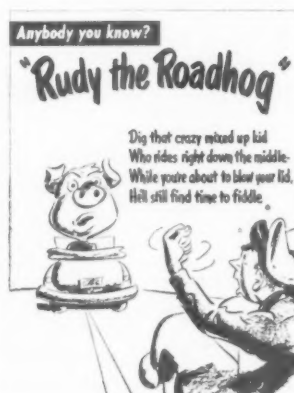
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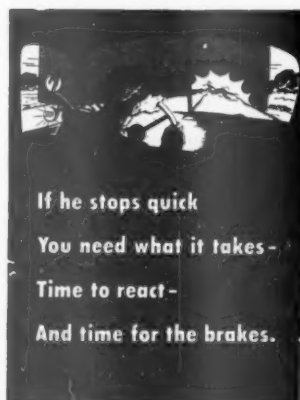
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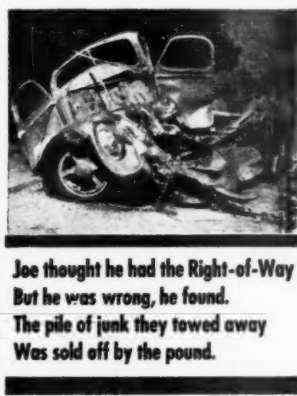
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V-0185-A 8 1/2x11 1/2

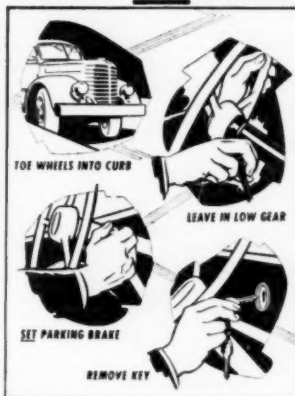


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V-8772-B 17x23



NATIONAL SAFETY COUNCIL
V-8735-A 8 1/2x11 1/2

PARK TO STAY PARKED



NATIONAL SAFETY COUNCIL
V-7961-B 17x23



NATIONAL SAFETY COUNCIL
V-9464-A 8 1/2x11 1/2

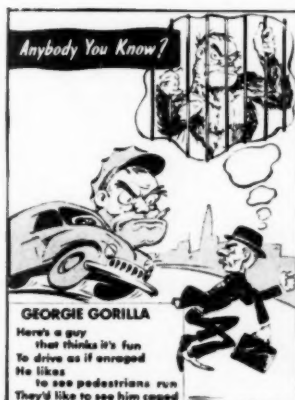
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NATIONAL SAFETY COUNCIL
V-0334-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-0108-A 8 1/2x11 1/2



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V-0289-B 17x23

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NATIONAL SAFETY COUNCIL
V-0184-B 17x23



NATIONAL SAFETY COUNCIL
V-8802-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-0333-B 17x23



NATIONAL SAFETY COUNCIL
V-0240-B 17x23



NATIONAL SAFETY COUNCIL

V-0176-B

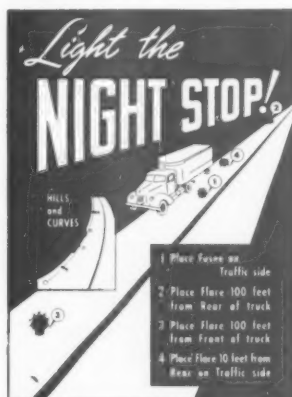
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NATIONAL SAFETY COUNCIL

V-6796-B

17x23



NATIONAL SAFETY COUNCIL

V-8361-A 8 1/2x11 1/2

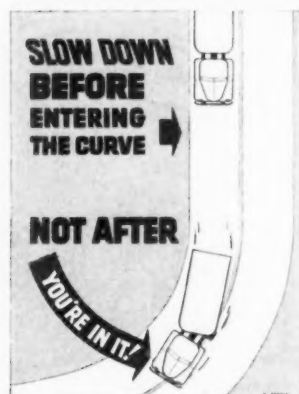


NATIONAL SAFETY COUNCIL

V-9328-B

17x23

POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

V-9008-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-8623-B

17x23



NATIONAL SAFETY COUNCIL

V-9629-B

17x23



NATIONAL SAFETY COUNCIL

V-9643-B

17x23

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

V-9364-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-9295-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-9536-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-8757-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. 9513-B

V-9513-B 17x23



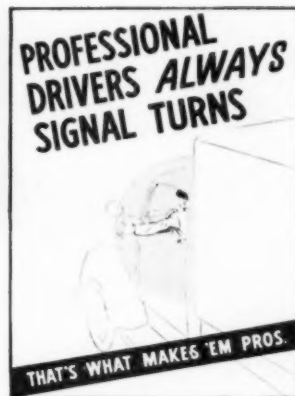
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V-9000-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. 9490-A

V-9490-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. 0345-B

V-0345-B 17x23

WATCH FOR NEW POSTERS MONTHLY IN NATIONAL SAFETY NEWS



NATIONAL SAFETY COUNCIL POSTER NO. 9552-B

V-9552-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. 9755-A

V-9755-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. 0162-A

V-0162-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL POSTER NO. 9391-B

V-9391-B 17x23

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL POSTER NO. 9576-B

V-9576-B 17x23



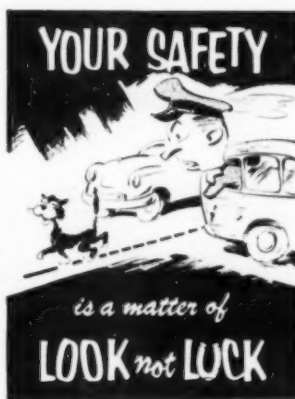
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V-9260-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. 0059-A

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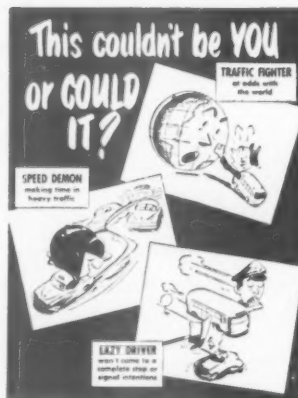


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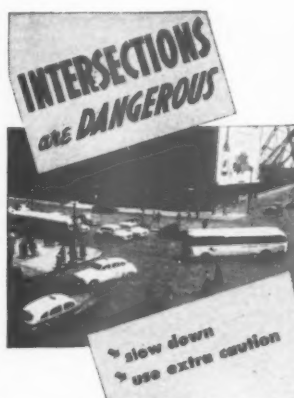
V-0279-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-9628-B 17x23



NATIONAL SAFETY COUNCIL
V-0027-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-9067-B 17x23



NATIONAL SAFETY COUNCIL
V-0160-A 8 1/2x11 1/2

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NATIONAL SAFETY COUNCIL
V-9765-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-9512-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-0154-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL
V-0264-B 17x23

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL
V-9205-A 8 1/2x11 1/2



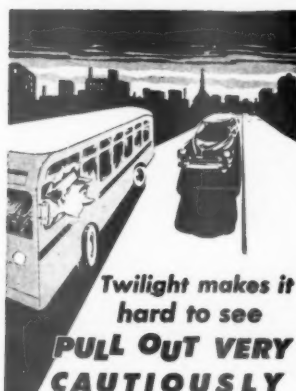
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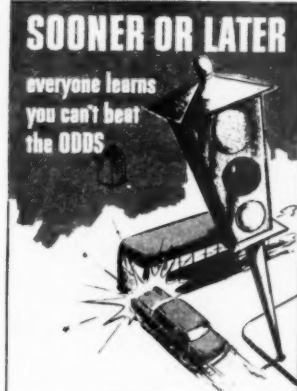
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V-0258-B 17x23



NATIONAL SAFETY COUNCIL

V-9644-B

17x23



NATIONAL SAFETY COUNCIL

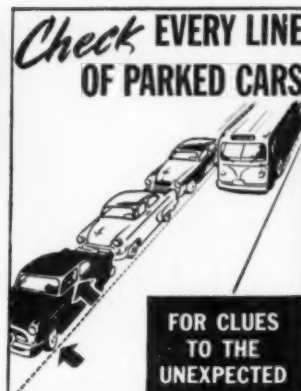
V-0288-B

17x23



NATIONAL SAFETY COUNCIL

V-9330-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-9666-A 8 1/2x11 1/2

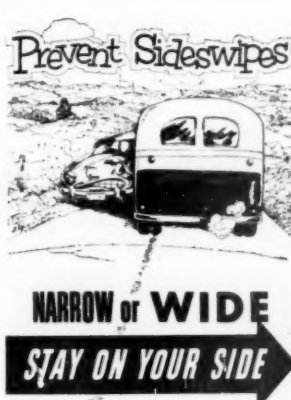
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NATIONAL SAFETY COUNCIL

V-9002-B

17x23



NATIONAL SAFETY COUNCIL

V-0241-B

17x23



NATIONAL SAFETY COUNCIL

V-9551-B

17x23



NATIONAL SAFETY COUNCIL

V-0224-A

8 1/2x11 1/2

POSTERS MINIATURED HERE ARE PRINTED IN TWO OR MORE COLORS



NATIONAL SAFETY COUNCIL

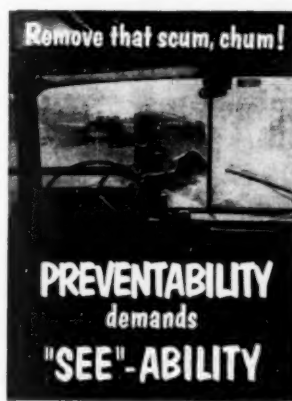
V-0291-B

17x23



NATIONAL SAFETY COUNCIL

V-9818-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-0171-A 8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-9667-A

8 1/2x11 1/2



NATIONAL SAFETY COUNCIL

V-8016-B

17x23



NATIONAL SAFETY COUNCIL

V-6523-B

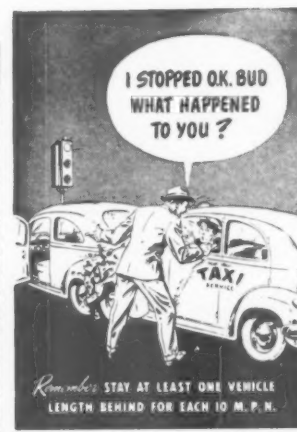
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NATIONAL SAFETY COUNCIL

V-9132-B

17x23



NATIONAL SAFETY COUNCIL

V-8362-B

17x23

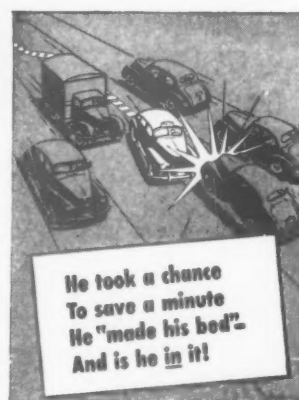
POSTERS ARE AVAILABLE ONLY IN SIZES SHOWN BELOW CUTS



NATIONAL SAFETY COUNCIL

V-9668-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

V-8430-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

V-8480-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

V-8561-A

8 1/2 x 11 1/2

SEE ALSO THE MULTI-COLORED POSTERS IN CENTER SECTION



NATIONAL SAFETY COUNCIL

V-0290-B

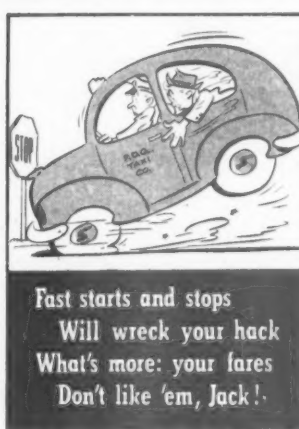
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NATIONAL SAFETY COUNCIL

V-8387-B

17x23



NATIONAL SAFETY COUNCIL

V-8380-A

8 1/2 x 11 1/2



NATIONAL SAFETY COUNCIL

V-8592-A

8 1/2 x 11 1/2

POSTER NUMERICAL LISTING

P	POSTER	PAGE	P	POSTER	PAGE	P	POSTER	PAGE	P	POSTER	PAGE	P	POSTER	PAGE	P	POSTER	PAGE
0003-A	5	0123-A	37	T-0245-C	19	7420-A	59	8249-A	46	8742-A	38	9081-A	59	9433-A	52	V-9717-B	62
0004-A	8	0124-B	9	0247-A	16	7425-A	13	8255-A	53	8743-A	41	9085-A	55	9434-A	55	9740-A	45
0008-A	19	0125-A	5	0248-A	46	7438-B	31	8256-A	42	8747-A	10	9088-A	48	9436-A	39	9743-A	47
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POSTER PROGRAM AIDS

PUBLIC SAFETY POSTERS

Though not illustrated in this Directory, there are a number of Traffic, Farm, School, and Home posters available. These posters can be particularly helpful in the off-the-job phase of your safety program. Many organizations provide posters of this type to their local schools, women's clubs, and youth groups as a regular part of their community relations program. Write the Membership Department for prices and information.

SCHOOL. Two 8½"x11½", two-color posters are produced each month—one for elementary schools, one for secondary schools. School posters are keyed to the monthly lesson units published by the School and College Division, but can also be used independently. May be obtained by subscription or individually. Posters purchased on subscription can be imprinted.

TRAFFIC. Traffic posters are illustrated each month in PUBLIC SAFETY MAGAZINE. Two new posters are released monthly keyed to the Operation Safety theme. The driver poster is available in "C" (25"x38") and "A" (8½"x11½") sizes. The pedestrian poster is available in the "B" size (17"x23"). Available by subscription or individually.

FARM. A list of specific farm safety posters appears in Service Guide 2.5.

HOME. The Council's Home Safety Division has prepared a list of posters which is available on request.

POSTER ELECTROS

You may obtain electrotypes of any poster illustrated in one color in this directory or in the poster section of NATIONAL SAFETY NEWS or PUBLIC SAFETY. (Electrotypes of 3 and 4 color posters are not available.) Electrotypes are approximately 1¾"x2½", suitable for use in plant publications and leaflets. Order by poster number. Allow two weeks for delivery.

Member Prices:

1 to 99 electros, \$3.45 each; 100 or more, \$3.15. (Non-member prices are double member prices.)

POSTER FRAMES

These are black enameled metal frames, made to fit National Safety Council posters. They are especially useful when display boards are not available, or when you wish to spot a single poster at a strategic point. Frames are large enough to accommodate cardboard backing, or a glass or plastic sheet in front of poster.

Member Prices:

"A" size (8½"x11½") 1 to 9 frames, \$1.15 each; 10 to 99, \$1.00; 100 or more 90c.

"B" size (17"x23") 1 to 9 frames, \$1.70 each; 10 to 99, \$1.40; 100 or more, \$1.15.

(Non-member prices are double member prices.)

PAYROLL ENCLOSURES

Miniature black and white reproductions of safety posters may be ordered for use as inserts in pay envelopes. You select 12 different posters from those shown in one color in this directory or in NATIONAL SAFETY NEWS or PUBLIC SAFETY. (Do not select miniatures shown in more than one color.)

The enclosures are printed 12 to a sheet and then cut to 1¾"x2½" size. Minimum order of 1200 enclosures (100 sheets) is required. Quantities of each of the miniatures selected must be identical. Order by poster number, and allow approximately four weeks for shipment.

Member Prices:

First 100 sheets, \$11.50; each 100 additional \$1.95. (Non-member prices are double member prices.)

SPECIAL SERIES POSTERS

THE seven poster series illustrated here were developed to meet the needs of certain industries for special situation posters. Specific hazards, backgrounds and equipment terms are used to increase effectiveness. Posters are directed fundamentally toward unsafe worker practices. Each series consists of 12 different posters and is sold in sets only. As sales are limited to the industry indicated, relative production costs are high. The price, is, therefore, somewhat greater than for regular "A" size posters illustrated in this Directory. These special sets should be used in conjunction with the regular posters to obtain a balanced coverage of both specific hazards and fundamental safe practices common to all industries.

Write to Membership Dept., N.S.C., for prices.



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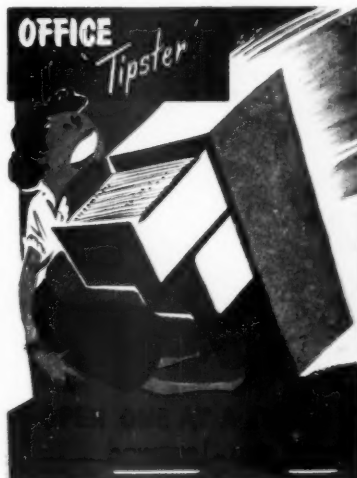
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